The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

VOL. II, No. 1, MONTREAL, MAY, 1854. POSTAGE FREE. PRICE 2s. PER ANNUM, IN ADVANCE.

The Farmer's Journal.

NEW VOLUME OF THE FARMER'S JOURNAL.—We have printed a few hundreds of extra copies in French and English of the present number, to enable new subscribers to commence with the second volume. Those who wish to continue their subscriptions will oblige us by remitting either in money or post office stamps, during the present month of May, as the second and succeeding numbers will be discontinued to all except those who have paid.

The Journal now enjoys, perhaps, the largest circulation of any periodical published in Canada, and as the rate charged for advertising, is only three-pence per line, it is an excellent medium for advertisers desirous of communicating with the public.

We have already described to our readers, particularly, the mode of making the superphosphate of lime, that is, of liberating by the action of sulphuric acid these essential ingredients of vegetable production, sulphur, phosphorus and lime. The great advantage is, that instead of leaving the bones to be slowly decomposed by the plants, and by natural decay, the process of decomposition is made speedy, and of course the returns speedy.

It may be, therefore, interesting to know what are the prices of the materials in the London market. As for bones we have enough and to spare, and we waste them all. Rape Cake we export. Gypsum we can get from nearer sources. Coprolite, we may explain, is the petrified excrement of animals which lived before the flood. It consists principally of phosphate of lime. It is chiefly found in the South of England, in formations which we do not possess here.

The article of most importance is the oil of vitriol, that is, the sulphuric acid, or, according to modern nomenclature, the peroxide of sulphur. Its manufacture is a very important one every way, as it is used for the conversion of common salt into soda. It is made by burning sulphur along with a small portion of nitre, to furnish the oxygen, otherwise it would form the sulphurous acid instead of the sulphuric. It is made on a very large scale, principally in Lancashire, Northumberland and Lanarkshire; in fact wherever coals are cheap, and there is ready access to the sea.

It is concentrated in a very singular mode. Sulphurous acid is very highly volatile; sulphuric not at all so. The latter is the only acid which forms with lead an insolulable scale or crust. Lead melts at a heat of about 600° Fahrenheit. The crude acid is put in leaden cisterns and fires are lighted under them. Care is taken not to let the heat reach above three hundred. At 212° the water begins to evaporate and leaves the acid pure. It is then put in large glass bottles, called "carboys."

In calculating the price, allowance must be made for the difficulty and cost of transporting this article, and the extra precaution required in packing it. But we are not aware of any reason why it could not be made as cheap in Canada as in Britain, if there were a sufficient demand here.

London, Monday, March 27th.

We had no imports of Peruvian Guano last week, but 277 tons exported. The trade for Guano, and all kinds of artificial manures, is very great. Linseed Cakes also in demand.

Prices Current for Guano.

	£	s.	d.		£	s.	d.
Peruvian Guano, per ton. .	11	0	0	to	11	10	0
" D. first class, (damaged) . . .	10	0	0		10	10	0
Bolivian Guano, . .	9	0	0		9	5	0

Artificial Manures, Oil Cakes, &c.

Nitrate Soda . .	19	0	0	19	10	0
Nitrate Potash or Saltpetre	33	0	0	40	0	0
Sulphate Ammonia . .	18	0	0	19	0	0
Muriate ditto .	22	0	0	23	0	0
Superphosphate of Lime, .	6	0	0	0	0	0
Soda Ash or Alkali, .	0	0	0	8	0	0
Gypsum, ...	2	0	0	2	10	0
Coprolite, ...	5	0	0	5	0	0
Salt, ...	1	1	0	1	5	0
Bones ½ inch. per qr., .	0	18	0	0	19	0
" Dust, " . .	0	18	6	0	19	0
Oil Vitriol, concentrated, per lb. . . .	0	0	1	0	0	0
Oil Vitriol, Brown, per lb.	0	0	0½	0	0	0
Rape Cakes, per ton, .	6	10	0	6	15	0
Linseed Cakes—						
Thin American in brls. or bags . . .	10	16	6	11	10	0

Ammonia Phosphate and Nitro-Phosphate £8 per ton.

BUTTER.

From the transactions of the Middlesex, (N. H.,) Agricultural Society. Opinions of Practical Farmers:—

Elijah M. Reid's Statement.

GENTLEMEN:—I present for your inspection one box of new churned butter, made from the milk of my *Alderney* cow. The cream was gathered from the 21st to the 30th of September.

Process of making:—The milk is strained into tin pans, about one half of which is set over a kettle of hot water and brought up to about one hundred and twenty degrees of heat

by the thermometer;—it is all set in a cool place and allowed to stand from thirty-six to forty-eight hours, when the cream is taken off and put into a tin pail and stirred daily. After it was churned, the butter-milk was worked out by hand, and salted to the taste. After standing thirty-six hours, it was worked over the second time.

Tewksbury, October 4, 1853.

John F. Rice's Statement.

GENTLEMEN:—The process of making this *Butter* varies but little from what I have stated to the committee on former occasions.

The milk was strained into tin pans, standing in an upper room for about thirty-six hours; the cream was then taken from the milk and put into tin pails and placed near by, or on ice, to preserve the right temperature. The cream is from four days milk of a dairy of ten cows, that have had no extra feed whatever.

This butter was churned in one of Parker & White's crank churns, until well come then rinsed in cold water, taken from the churn and salted, one ounce to the pound.

After remaining about twelve hours it was worked into pound lumps and prepared in the manner here presented.

Marlboro', October 4, 1853.

William F. Barnard's Statement.

GENTLEMEN:—The lot of Butter which I offer for your inspection is from one week's cream of a dairy of seven cows, and was made in the following manner. The milk was strained into tin pans and set on shelves in the milk-room, properly ventilated by a window which is kept open most of the time, screened by a blind on the outside; after standing from thirty-six to forty-eight hours according to the temperature of the weather. The cream is then taken off and put into tin pails and kept in the same room till churned. The buttermilk is then drawn off, the butter taken out and worked over and salted in proportion of about one ounce to the pound. I never use water in rinsing the butter or ice in the cream. After remaining about twelve hours, the butter is again worked over and weighed into pound lumps, and prepared for the box by the use of the hand, and thin pieces of hard wood such as are used by dairy women in shaping the lumps.

Marlboro', October 4, 1853.

Daniel L. Giles' Statement.

The box of new churned butter, which I present for your inspection, is a specimen of six hundred and forty pounds, made since the 9th of June last, from a dairy of eight cows.

The average quantity per week being forty pounds.

The cows have had common pasture until the middle of August, since then fed with cow-corn.

Process of making:—The milk is strained into tin pans, and stands in a cool chamber from thirty-six to forty-eight hours, when the cream is taken off, and put into a large cooler, and stirred daily until churned.

We churn twice and three times a week. After it is churned, the butter-milk is thoroughly worked out with the hands, and salted to the taste. After standing twelve hours, it is again worked and weighed, each pound separately.

Lincoln, October 3, 1853.

Note.—Statements were also made by Charles Howe, of Marlboro', Sherebiah Spalding, of Chelmsford, and Mrs. B. Moore, and John Farwell, of Framingham,—their process very nearly agreeing with those already given.

The Chairman says that Mr. Read's butter was the soundest and most solid he ever saw, but that it had not the "high sweet flavour" of Mr. Farwell's, who gained the first prize.

It may be a matter of doubt which kind of butter is most profitable, the former being the best for export, but the latter for home consumption; that is, the former will keep better while the latter is more agreeable for ready use. But people can often obtain good salt butter when they cannot obtain good fresh. At present, England and France being the great importing countries of food, their prices will necessarily rule those of the world. The improvements of the modes of transit have so much abridged distance that fresh butter can be had where the salted was used formerly. The finest and highest priced butters in Europe are the Dutch and Danish. These are now, by steam and railroads, placed within a few hours distance of the great markets of consumption. The English and Irish follow next. For some reason or other the French and Scotch, and other European nations, do not produce good butter, though each excel in their peculiar article of produce; the French in bread and wine, the Scotch in grain and fish, the Germans in cured meats, the Italians in oil and the preparations of flour which we call macaroni and vermicelli, and so on.

We remember when the butter of Cumberland and Westmorland was in such high request, that "tinetts" or "firkins," as they are called, were sent by coach, or, as we now say, by "stage" to London, not for sale, for the quantity made was small, but as valued presents. By the time it got to London it cost three times its market value at home. But of late years the Irish of Ulster, and many of the counties in the other Provinces, have made excellent butter of the same quality, which the steamboats convey within a few hours to the market. The Belfast "crock butter," as it is called, from its being packed in earthenware jars, as that of Kammouraska, is of the same quality, that is the rich and sweet, very slightly salted, so as not to need washing, which always deteriorates the flavour.

The quality of butter in this Province varies as widely as the climate, and that is as extensive and various as that of Europe.

There can be no doubt that the mode of making butter has a great influence on its quality. Farms contiguous and with no apparent variety of stock or soil produce very different butters. This no doubt arises from negligence or want of skill in the dairy.

But independent of the management of the dairy we are convinced that no skill can produce the same quality of butter from two different soils, and from different breeds of cattle, and from different food. There are in butter as there are in tallow and lard, and in the substance of every animal, two different elements. The one is *oliene* or oil; the other is *stearine* or wax, the element of the prime substance of cheese. The former gives the rich but perishable flavour to butter. The latter gives it that firmness which makes it fit for export to distant markets. Wherever the *oliene* prevails butter is the most profitable for dairy husbandry; where the *stearine*, cheese. The flavour depends upon one, the substance on the other.

The same rule prevails through all the animal economy. The fat of the oxen and the sheep will become solid at a much higher temperature in a warm climate than they will in a lower. Nature produces by some inscrutable process an increased proportion of stearine. The flesh of the pig, when from the nature of its food it is oily, that is, predominates in oily principle, makes excellent and highly flavoured pork, but spoils and turns rancid when made into bacon.

We have received a copy of a return printed by Mr. Frechette, of Quebec, in obedience to an address of the Legislative Assembly, entituled "Parochial and Township Subdivisions of Lower Canada." It contains a very great amount of statistical information and it includes both the Roman Catholic and the Protestant ecclesiastical divisions. It cannot but be interesting to our rural readers.

It is much to be regretted that our Houses of Legislature do not adopt the modern English mode, for which the country is in-

debted to Mr. Hume, of selling all parliamentary documents at the mere cost of the paper. If the country is taxed to pay for them there seems no reason why the country should not have the benefit of them.

We feel confident, however, that any Marguillier or Church Warden will obtain a copy by applying through his parliamentary representative, and if any desire a particular description of his own parish we shall be happy to give it.

We must observe that even down to the time of Lord Metcalfe the descriptions and boundaries are very vague. The word "about," as describing boundaries, is commonly used. At that time the Province had not been accurately surveyed, and difficulties may hereafter arise.

But even in the time of His Excellency, the present Governor General, we find used the same phrase, "about," for which there is less pretext. In the old times the country was improperly surveyed, but at present there is no reason for the want of exact definitions.

BOARD OF AGRICULTURE.—In reference to the proposed Crystal Palace Exhibition at Sydenham, near London, England, the Boards of Agriculture of Lower and Upper Canada have issued copies of the subjoined circular, to all the Agricultural Societies in the Province, with the view of taking energetic measures to have the productions of Canada properly represented at the Exhibition. In addition to the articles mentioned in the circular, mineral and geographical specimens will, we are informed, be forwarded by Mr. Logan, Provincial Geologist, and specimens of skins, furs, &c., by the Hudson's Bay Company,

[*Circular.*]

MONTREAL, April 13th, 1854.

BOARD OF AGRICULTURE,

SIR,

The Boards of Agriculture of Upper and Lower Canada fully impressed with the importance of having the raw produce of Canada efficiently represented in the Sydenham Crystal Palace, to be opened in spring in the neighbourhood of London, and thereby sustaining the high character obtained by the Province at the World's Fair in 1851, have been in communication with the Bureau of Agriculture on the subject, and I am happy to inform you that the Government has officially signified its willingness to grant pecuniary aid provided that the Agricultural Societies in the Province give their active co-operation.

I shall feel obliged by your informing me, with as little delay as possible, of the determination of the Agricultural Society over which you preside, on this matter, if it be in favour of co-operating with the Board, and, you can procure within your limits, Superior Specimens of any of the undermentioned articles, I request you to do so in the quantities or of the bulk named, and forward them to William Evans, Esq., at this office.

The value of the articles, and the expense of forwarding them to Montreal, and finally to England, will be paid by the Board.

Grain:

Wheat, Barley, Oats, Rye, Buckwheat, Peas, Beans, and Indian Corn, (with cob). Each variety, one minot, of the best quality, and each carefully named, also, with the name of the producer, and the Township, Parish and County where grown.

Seeds:

Flaz, Hemp, Turnip, Mangold-Wurtzel, Clover, Timothy, Canary and Millet. One peck of each.

Produce used in the Manufacture of Textile Fabrics, &c.

Flax and Hemp, 14 lbs. of the raw plant of each, and 5 lbs. of the hackled fibre. Wool, 3 lbs. of the best specimens of the fine, medium, and long sorts, carefully selected, and properly made up. Hops, 5 lbs. well put up. Sorghum, (Broom-corn,) a Peck of the Seed, and 25 lbs. of that part of the plant employed in making Brooms—well put up. Four lbs. of Maple Sugar.

Woods.

Superior specimens of the rarer kinds of Wood, in the form of transverse sections of the tree, with the bark on; the specimens to be about two feet in length, and of the girth of the tree. Longitudinal sections in the form of rough planks, about four feet in length, and three inches thick, of the entire width of the tree, would be acceptable. It would be desirable that our native woods should be represented at the Sydenham Palace, but the specimens selected should be very superior.

New Inventions, &c.

Parties possessing new and useful inventions, or manufacturers of such articles as would indicate our industrial state and progress, are invited to communicate with the Board, with a view of determining the expediency of transmitting such productions to the Sydenham Palace.

I have the honor, &c.

(Signed,) T. EDMUND CAMPBELL,
President Board of Agriculture of Lower Canada.

BUREAU OF AGRICULTURE,

Quebec, 15th April, 1854.

PATENTS OF INVENTION.

His Excellency the Administrator of the Government has been pleased to grant Letters Patent of Invention for a period of fourteen years, from the date thereof, to the following persons, viz:

Hiram Scovell, of the village of Waterford, in the county of Norfolk, yeoman, for "a Cider Mill and Press,"—[dated 28th March, 1854.]

William Harrison Soper, of the town of London, in the county of Middlesex, rifle maker, for "an improvement in grooving and inside finish of Rifle Barrels,"—[dated 28th March, 1854.]

Lewis Reese, of the village of Oshawa, in the county of Ontario, turner, for "a new and useful improvement in the construction of a Machine for cutting Hay and Straw,"—[dated 30th March, 1854.]

George Williston, of the city of Quebec, machinist, for "a new and improved Machine for Straightening or curving Rails,"—[dated 4th April, 1854.]

Pierre Gauvreau, of the city of Quebec, architect, for "a new and useful Cement to be called by him 'Gauvreau's Canadian Hydraulic Cement,'"—[dated 5th April, 1854.]

BUREAU OF AGRICULTURE,

Quebec, 20th April, 1854.

PATENTS OF INVENTION.

His Excellency the Administrator of the Government has been pleased to grant Letters Patent of Invention for a period of fourteen years, from the date thereof, to the following person, viz:

Jonas Philip Lee, of Niagara, in the county of Lincoln, one of the united counties of Lincoln and Welland, manufacturer, for "the Double Knitting Machine,"—[dated 10th April, 1854.]

THE CANADIAN JOURNAL, a repertory of Industry, Science, and Art; and a Record of Proceedings of the Canadian Institute. Published by Hugh Scobie, Toronto, for the Council of the Canadian Institute, and for sale by A. H. Armour & Co., Toronto; John Armour, Montreal; Peter Sinclair, Quebec; John Duff, Kingston; and John Graham, London, C. W.

This very interesting Journal, is a compilation of all the articles in the different scientifical and practical periodicals of peculiar value to this country. It is also largely supplied by original contributions.

We subjoin an article of great interest. Of all her wealth, Canada is the richest in the pines, or as botanists call them the *coniferæ*, from the conical shape of their seed pods.

Canada is the greatest exporting country in the world for white pine; indeed, perhaps the only one, and to a large extent of red. The growth is spontaneous. There needs no planting, as in Germany. The difficulty is to keep the young saplings down as weeds, even in the cleared lands.

We always consider, that the word "agriculture" should be taken in a large acceptation. It not merely, we think, includes the tilling and the sowing of the surface of the land,

the beasts which live on it but the exploration of its subterraneous treasures, and the use of those which nature has given on the surface.

In this point of view, if the leaves of the Hemlock, Spruce Pine, Silver Pine, Swamp Cedar, all of which abound, can be used in this country, they may neutralise the wheat-fly.

NEW USES OF THE LEAF OF THE PINUS SILVESTRIS.

Not far from Breslau, in Silesia, in a domain called *la Prairie du Humboldt*, exist two establishments, equally astonishing on account of their objects and of their connexion; one is a manufactory in which the leaves of the pines are converted into a sort of cotton or wool; the other offers to the sick, as a salubrious bath, the waters left from the making of this vegetable wool.—Both were founded under the head Inspector of Forests, M. de Pannewitz, the inventor of a chemical process, by means of which from the long and slim leaves of the pines is procured a very fine filamentous substance, which has been called *wood-wool, (laine de bois,)* because it curls, felts, and may be spun like common wool.

The *pinus silvestris*, or wild-pine, whence this new product is procured, is already much esteemed in Germany, on account of several valuable advantages which it presents; and, in place of abandoning it to its natural growth, extensive plantations of it have been formed, which are true forests. When planted on light and sandy soils, which it prefers, and in which it grows with the greatest rapidity, it gives them consistency and solidity. Associated with the oak, it becomes shelter, under the shadow of which this latter acquires a great strength of developement, until in its turn it rises above its protector. When the pine has reached its fortieth year, it furnishes very profitable crops of resin. Its wood is esteemed for buildings, &c. The employment which M. de Pannewitz has proposed to give to its leaves will, without doubt, contribute to spread still more the culture of a tree already so useful, and will perhaps, give it some favour in other countries where it is scarcely known.

All the acicular leaves of the pines, the firs, and coniferous trees in general, are composed of a bundle of fibres extremely fine and tenacious, which are surrounded and held together by a resinous substance in thin pellicles. When by heat, and by the employment of certain chemical reagents, the resinous substance is dissolved, it is easy to separate the fibres from each other, to wash them, and free them from all foreign bodies. According to the method used, the woolly substance acquires a finer quality, or remains in a coarser state; and in the first case it is employed as wadding; in the second, as filling for mattresses. Such, in a few words, is the account of the discovery due to M. Pannewitz.

In practice, the *pinus silvestris* has been preferred to others because it has the longest leaves. There is no reason to doubt that in the countries in which other species of pine exist with equally long foliage, the same products may be as advantageously obtained. There is no danger in stripping the pine of its leaves even in its youth. This tree has need for its growth only of the whorls of leaves which terminate each branch; all the leaves which surround the rest of the branch may be stripped off without doing any harm. This operation must take place while they are green, for it is only then that they can serve for the extraction of the woolly substance. The stripping of the leaves is the province of poor people, and pays them good wages. The operation can only be performed every two years. The product of each gathering is one pound of leaves for a branch of the thickness of the finger. A beginner can gather thirty pounds per day; an experienced hand may get as much as one hundred and twenty. The profit is greater from a felled tree than one standing.

The first use which was made of this filamentous substance was to substitute it for cotton wadding in quilted coverlets. In the year 1842, the hospital of Vienna bought five hundred of these coverlets, and, after using them for several years, renewed its orders. It was remarked, among other things, that, under the influence of pine-wood, no kind of parasitic insect harboured in the bed, and the aromatic odour which they emitted was considered to be agreeable and beneficial. Soon afterward, the penitentiary of Vienna was provided with the same kind of coverlets. Since then they have been adopted, as have been also mattresses filled with the same wool, in the hospital La Charité at Berlin, and at the hospital La Maternité, and the soldiers quarters at Breslau. An experience of five years in these establishments has shown that the *wool-wood* is well fitted for use in coverlets, and for wadded goods, and is very durable.

At the end of five years a mattress of wool-wood had cost less than one of straw, which required the addition every year of at least two pounds of fresh straw. Furniture, in the construction of which this matter was used, was preserved from the attacks of moths. It cost three times less than hair, and the most skilful upholsterer could not distinguish an article of furniture in which it is used from a similar one stuffed with hair. We are, besides, assured that it may be spun and woven. The finest gives a thread resembling that of hemp, and is as strong. When spun, woven, and finished like cloth, it furnishes a product which may be employed for carpets, horse-furniture, &c.; when interwoven with a warp of linen, it may be used as bed coverings. The products of the manufactories of Kuckmantel and La Prairie d'Humboldt gained for their present owner, M. Weis, a bronze medal at the exhibition of Berlin, and a silver medal at that of Altenburg.

In the preparation of the *wood-wool* there is produced an ethereal oil with sweet odour. This is at first of a green colour; exposed to the light, it takes an orange-yellow colour; when carried into a dark place it regains its green colour; by rectification it becomes as colourless as water. It has been shown to differ from the essence of turpentine, which is extracted from the stem of the same tree. Employed in various rheumatic and gouty affections, and applied as a balm upon wounds, it has produced salutary effects; as also in vermicular affections, and in the case of certain cutaneous tumours. When rectified, it answers as an excellent oil in the preparation of the finest lacs, which form the base of varnishes; and has been burned in lamps like olive oil. It dissolves caoutchouc completely, and in a short time. The perfumers of Paris use a large quantity of it.

It has been found that the liquid residuum which the boiling of the pine leaves leaves, exercises a very salutary action when employed as a bath; so that a bathing establishment has been annexed to the manufactory. This liquid has a greenish colour, verging on brownish; according to the circumstances and the mode of preparation, it is either gelatinous and balsamic, or acid; in this latter case prussic acid is produced. During the nine years since the establishment of the baths, their reputation and the number of their visitors have been constantly increasing.

When it is necessary to augment the efficacy of the baths, there is added an extract obtained by distillation of the ethereal oil of which we have spoken, an extract which also contains prussic acid. The liquid residuum is also concentrated to the consistency of a liquid extract, and then enclosed in sealed vessels to be used for baths at home.

The membranous substance which is obtained by filtration when the fibre is washed is put in the form of bricks, and dried; it then serves as a combustible, and produces a large quantity of gas for lighting, which comes from the great quantity of resin which it contains. Henceforth, it may be used for heating and lighting the manufactory.—*Bib. Univ. de Genevi.*

REPORT ON THE MERITS OF WOOD AND IRON PLOUGHS.

In the usual occurrence of seasons, after the conclusion of harvest operations the general practice with farmers is to commence ploughing, in order that the land, being turned over in a dry state, may be ameliorated by the action of the winter's frost. Without further comment upon the many and necessary cases that the plough must be brought into use in the subsequent seasons which elapse prior to the husbandman reaping the advantages of his labours, we shall

endeavour to describe the action of ploughing as simply as possible.

It is well understood that the plough serves the same purpose to the farmer as the spade to the gardener; and the object to be gained from their use is to obtain such a command over the soil that, as previously stated, it may become ameliorated, or friable.

The spade, we all know, is an implement entirely under man's personal control; though means have been devised to wield it by the application of horse power, but no locomotive machine can compete with the human body in executing work within the sphere of its strength and dexterity. The plough is certainly the nearest approach we have yet made in obtaining a substitute for spade labour: being too heavy an implement for manual use, it is not therefore so entirely under man's control; but, by the use of horses, with approximate appliances, known as gearing or harness, he can command its motions pretty effectively. The quantity of produce is usually larger when manual labour solely has been resorted to; but the comparative cheapness of the cost, combined with the fact that, within a given season, a much larger breadth of soil is under the farmer's command by the use of the plough, the deficiency is amply compensated for.

Spade husbandry, to the casual observer, seems both a simple and easy operation; but experience proves that the act of digging is the reverse, as it requires every muscle of the body to be put into action, so that any machine to imitate it must have a very complex structure. And it is a difficult problem in practical mechanics to construct a light, strong, durable, and convenient instrument, of easy movement, which will produce by a simple action the desired effect; yet we have in the plough an implement possessing all these properties in an eminent degree.

Various have been, and still are, the opinions, whether this valuable implement should be made of wood and iron, or totally of the latter material. From Northumberland to Aberdeen, in many parts of Lincolnshire, and some of the southern counties, wood is the exception—in this neighbourhood the reverse. Of late years a few of our leading agriculturists have endeavoured to supersede it by the use of iron; but the prejudices of the labourer in too many instances has triumphed over the employer, and the intruder allowed to be cast aside, only to be used when no other was to be had. A wooden plough seems to the unpractised hand a clumsier implement than an iron one; but in weight it is lighter. This, we suspect to be the true reason of its popularity.

The recent advance in the value of manual labour and horse power, renders it highly important that these two principal outgoings of the farmer should be economised. Large sums, for many years, have been wasted, partly from the supineness of the agricultural class to deviate from the systems laid down by their ancestors, and partly from the want of means to calculate with accuracy the great saving to be effected by carrying out some of the more modern views of the present race of the occupiers of the soil. To overcome the prejudices of the former, we are indebted to our agricultural societies and farmers' clubs; to obtain the latter, to scientific men, who have spared neither pains nor expense to effect so desirable an object; and, particularly in this report, we must make honourable mention of Mr. Bentall, of Uxbridge, the patentee of the improved dinamometer, who, in the most handsome manner, not only lent us the use of the implement, but personally superintended the testing of the relative draught of the ploughs, thus enabling us to arrive at a conclusion not only most satisfactory to ourselves, but we trust to the agricultural community generally, as regards the most difficult part of the test—draught. This, with the other points which we consider it our duty to lay before you for discussion this day, viz.: durability, relative cost, weight, and performance, we will now go into *seriatim*; merely observing, that the trial upon which we were called to give our opinion took place at Messrs. Wells' Booth Ferry farm, in the month of October last, and was arranged by Robert Scholfield, Esq., of Sand Hall, and Mr. John Wells, of Booth Ferry House, for the express purpose of arriving at an accurate decision on these points, the former gentleman having hitherto used the wooden plough, the latter having superseded it by the iron one. The land chosen for the work was wheat stubble, the quality deep old warp, the depth of furrow to be ploughed eight inches, and the width twelve inches. The competing ploughs seven in number; four composed solely of iron, and three of wood for the hales and beams, the remaining parts wood sheeted with iron. All the ploughs to be drawn by the same pair of horses, but each plough to be held by the person accustomed to use it. The result was as follows:—

	Weight of Implement.		DRAUGHT.			
					Relative cubic inches per 100 feet.	
IRON PLOUGHS.	st.	lb.				
1. Mr. Well's Booth Ferry own manufacture . . .	17	0	100	33⅓	100	33⅓
3. Ditto, ditto, Fifeshire ditto . .	13	7	105	33¾	100	31⅝
4. Mr H Smith, Drax Abbey, Busby maker . . .	17	11	106	29⅝	100	28¼
7. Ditto, do, do, with wheels . . .	20	13	101½	32	100	31⅝
WOOD PLOUGHS.						
2. Mr. George Clark, Howden, Prince, maker, . . .	12	0	95	36½	100	38¼
5. W Scholfield, Esq. Sand Hall, Foster, maker . .	11	13	100	36	100	36
6. Mr. W. Smith Potter Grange .	11	4	7	30½	100	31

In making the average one hundred cubic inches for each plough, we have calculated at the same rate those whose furrows were below, as those that were above one hundred cubic inches. This is in favour of nos. 2 and 6 ploughs, they having averaged below one hundred cubic inches; and adversely in proportion to nos. 3 and 4, whose average exceeded one hundred cubic inches. The additional land ploughed by the latter, caused a greater draught in proportion than the calculation gives; it is therefore evident that *the iron ploughs, 3, 4, 7, have the superiority in lightness of draught over all that were tested.* No. 6, wood plough over no. 1, iron; and nos. 2 and 5, wood ploughs, notwithstanding the average weight of the wood ploughs was twenty-five per cent. less than all the iron ones, excepting Mr. Wells' Fifeshire plough (no. 3)*.

Having laid before you the draught and weight of the competing ploughs, we proceed with our opinion upon one of the most important points of this description of agricultural work, namely, the laying of the land, and the turning of the furrow. In this respect, Mr. Well's *Fifeshire iron plough stands preeminent.* Mr. George Clark's, no. 2, and Mr. William Smith's, no. 6, wooden ploughs, the next in order.

It now only remains to state what we conceive to be the cheapest and most durable implement. The cost of a wooden plough, when new, is about three pounds, capable of being serviceable, with repairs, for a lease of five years, at one pound per annum. An iron plough, four pounds ten shillings, capable of being serviceable, with repairs, for a lease of twenty years, at eight shillings per annum; and half the prime cost for the wrought iron parts, such as hales, beams, and shackles. Thus we have—

	£	s	d
Wood, prime cost - - -	3	0	0
Repairs, five years - - -	5	0	0
	8	0	0
Deduct old iron coulter, shackles, and shares - - - -		15	0
Total for five years - -	7	5	0

	£	s	d
Iron, prime cost - - -	4	10	0
Repairs, twenty years - -	8	0	0
	12	10	0
Deduct old iron - - - -	2	5	0
	10	5	0
Add interest on difference -		4	6
Total for twenty years - -	10	9	6

The average expense of a wooden plough, therefore, will be £1 9s., an iron plough 10s. 6s. per annum, or a saving of nearly two hundred per cent. in favour of the latter.

In making this calculation, we thought it

* See tabular statement.

better to fix a terminable date to the iron plough. Mr. Wells showed us ploughs that have already been regularly used for upwards of ten years, and they appear, in their skeleton parts, nearly as good as new. The vicissitudes of the weather, to which this description of farming implement is necessarily exposed for nine months in the year, operates powerfully upon the beams and hales of wooden ploughs; whilst its competitor, with a single coat of red lead annually, escapes comparatively scatheless.

You are now in possession of the result of a competition which, to our minds, clearly demonstrates that, in lightness of draught, the wooden plough can bear no comparison to the iron one, whilst in every other respect, especially as regards economy, the latter supersedes it.

We trust the kindness of the gentlemen who originated and subsequently brought to a conclusion this practical test will be duly appreciated; as experiments on controverted points thus carried out by its members must tend to the advancement of the Howden Farmers' Club in the opinion of the country, as beneficial to agricultural pursuits.

SAMUEL STORE.
WILLIAM THOMPSON.

We copy the following from a very useful paper published at Albany, N. Y., the "Country Gentleman." The principle is a very sound one. Both in farming and trade "quick returns" is the first point.

We have described before the mode of making bone manure without the bone mill, namely by steeping the bones in sulphuric acid diluted, a process so easy that no person can fail in it. We see that the United States are importing very large quantities of guano from a newly discovered depot on the coast of Mexico, which is much nearer than Peru. There is nothing whatever to prevent importations for the use of our own farmers also if they could be persuaded to use it, for with our present railroad and canal facilities, small parcels might be obtained from the ports of import, but at an advance of price.

IMPERMANENT MANURES THE MOST PERMANENT.

This, at first view, seems to be contradictory. But let us look at it. Let us see whether the most impermanent manures, under a sharp, wide-awake system of farming, are not the most permanent in their effects.

A permanent manure is one, in which the plant-feeding ingredients are so far insoluble, as in coarsely crushed bones, for instance, that the plants take but little of them the first year, little the second, and so on for 20, 30, and sometimes more years. The farmer would hardly wish his manures to be permanent in this respect, because they do not give him back their money value sufficiently quick. He desires a speedier return for the value of his manures at the time of their application.

An impermanent, or quickly acting manure, on the other hand, is one in which the plant-feeding ingredients are so far soluble, that the plants take nearly or quite the whole of them the first year. The strength of the manures goes to the first crop. And yet I contend that the effects of this manure, under good management, are most permanent; because it quickly produces an increase of crops. This increase of crops, if expended on the farm, leads to an increase of stock, that to an increase of manure, that to a still greater increase of crops, and so on permanently, as long as the good management is continued. In this way will a farm soonest become rich; and not only so, but it will become capable of keeping itself rich, without the addition of manures from abroad; and thus it appears that the most impermanent, quick acting manures, may really be the most permanent in their effects.

It is well for the farmer to apply such home fertilizers as he may have at command, though some of them may give him but a slow return. As they cost him but little, he can afford to wait for the result. But when he purchases manures, it should be with the expectation of getting the whole cost and something more back in the first crop.

N.

CARE OF SHEEP.

Breeders of sheep—no matter of what variety—should be cautious in selecting their bucks, and look not only at the good qualities of the individual, but also to his adaptation to the ewes; choosing an animal that will amend any imperfection in wool or carcase which may be observable in the females. The requirements of the flock of ewes should be particularly noticed, and a careful separation of them made, so as to ascertain more accurately their precise defects, and to point out with greater certainty the peculiar kind of buck necessary to rectify these defects. This should be done before procuring the buck—not to buy first, and then try and suit the ewes to him afterwards.

Never purchase a buck from an unknown flock. An inferior buck from a flock of well-known repute will produce better stock than an accidental good one from an inferior flock. By all means keep to a "good strain;" adhere to flocks of well known and deserved celebrity; you are far more certain as to the result. It is always better for a breeder to *hire* a buck than to buy one. Bucks "now-a-days" are so highly kept, so pampered, that the vast number of them are defective stock-getters. A yearling buck is generally supposed to be fully equal to serve 75 to 80 ewes; but a two year old buck should not have more than 70 to 75.

In making choice of a buck to suit the ewe flock, regard should be had to every requirement. Neither *wool nor mutton* ought to take precedence, both must be held of equal value. If any quality is to be discontinued, or of necessity given up for the time, let it be beauty, or symmetry, or some minor point. These are truly good in their place, but for these never give up the main qualifications—a good fleece, a fat buck, and a full symmetrical proportion, of great substance. As far as possible, put a short-legged buck to a long-legged ewe; a full chested buck to a narrow chested ewe; a heavy-wooled buck to a light-wooled ewe; and so on, as judgment dictates, endeavouring to obtain from the male what is wanting in the female.

In breeding what are termed "half-breeds" or "grades," great care should be taken to obtain bucks from good flocks, or the end will be defeated. The very best of bucks should be used, possessing every good qualification of wool, mutton, and symmetry.

In all cases use the best buck, or the best kind of a buck you can obtain, *and be not too nice about the price.* I have known many flocks to make from seventy-five cents to a dollar and a half per head more than others of the like size, solely from better and more correct breeding; and the difference is far greater as they grow up and are fattened.—*London Farmer's Magazine.*

We cannot understand the sense of describing a "ram" as a "buck." The ram is the male of the ovine tribe, the buck of the cervine. The next improvement we suppose will be to describe a cow as a horse.

A CHAPTER ON GARDENERS.

BY HORTICOLA.

Nurserymen and florists are frequently called gardeners, but in the present case I wish to be understood as meaning *gentlemen's gardeners.* To begin at the beginning, I will first inquire what a gardener is. In scientific phraseology, he belongs to the genus Homo and to the natural order of Menials. If you doubt my assertion, or wish for higher authority as to the correctness of my classification, I refer you to any of the New York papers, where, if you will run your eye down the columns, you will find—

"Wanted—Three cooks, one housemaid, two waiters, four coachmen, two *gardeners,* and a servant of all work."

As the gardener belongs to this family, he is treated by his employer in the same manner as the rest. "And why not?" some of my readers may ask. Who or what is the gardener, that he should be distinguished or held in higher esteem than the rest? I do not wish to reflect, sneer, or in any way speak or write disparagingly of these necessary and useful worthies; they may discharge their various duties with credit to themselves and to the satisfaction of their employers: but

the requirements of the gardener I conceive to be of a different and more important character than of the others. He must be a man of mind, capable of thought, foresight, and reflection. He has not only the same amount of manual labor to perform as the other domestics, but his mental powers must be taxed—he must work with head and hands too, or he is no gardener. He is required, perhaps, to produce bunches of well-ripened Grapes in May or June, while the waiter has merely to dish them and carry them to the table: and in the same months, Cauliflowers, Cucumbers, and new Potatoes; while the disciple of Mrs. GLASSE has merely to cook and serve them up. Poor blue-apron has first to "*catch the hare*," which is certainly the most difficult part of the business.

I will next inquire why it is that a gardener is treated like a mere machine, which in many situations he is. Is the fault his own, or does the blame attach to his employer? I am inclined to think that in very many cases blame ought to rest on his own shoulders. I admit that many good gardeners frequently become careless and indifferent from the fact that their services and ability are not properly appreciated by their masters; but I think one reason why he makes no distinction between the gardener and the other servants, is because he actually can not see any difference, either in address, intellectual acquirements, or anything else. It is to this I would particularly wish to call the attention of the gardener. There is truth in the adage, that "if we wish to command respect from others, we must first learn to respect ourselves;" and I should infer, from the personal appearance of some gardeners, that they have entirely lost all self-respect. It may appear a small affair to some to allude to the subject; but, while I abominate all coxcombry and dandyism, at the same time I do not see why a gardener should not be clean in person and decent in apparel. It is too delicate an affair for an employer to allude to; but I feel assured that many men would hold a higher place in the esteem of their employers, if they paid a little more attention to this.

A gardener ought to be intelligent, and well informed about every thing appertaining to his business. There are many who are well posted up in politics, the price of lots, &c., and who do not know the names even of half the plants under their care, saying nothing of their native habitats, introduction into the country, &c. Others again have I met with (despisers of books, catalogues, &c.,) relying on their own unaided practice, as they say, for their knowledge, who have affirmed that they could tell whether a plant was hardy or tender, by its appearance. I should like to hear the verdict of one of these knowing physiologists on two such plants as *Auracaria excelsa* and *Libocedras Chiliensis*, supposing they had never seen them before.

As regards information from books and practice, the latter I admit is the most important; but at the present day, the gardener who never reads, whatever he may think to the contrary, is most certainly behind the age in which he lives. I know that the majority of gardeners have received only the rudiments of an education; neither have some of the greatest men of the past and present ages—they have been self-taught. What education did Sir Joseph Paxton receive? and now look at the position he holds. Some jealous mind may sneer and say that had it not been for the patronage of his princely employer he would have been nothing more than any ordinary gardener. I do not believe it; recollect there is no royal road to learning. Doubtless he met with every encouragement, but his success must be mainly attributed to his untiring industry and perseverance. Although I am not personally acquainted with Sir Joseph, I think I have sufficient acquaintance with such a man to warrant the assertion that (if called upon to do it) he would cast his title at her Majesty's feet, and his property after it, rather than sacrifice or be robbed of the knowledge he possesses—the information he has obtained from books, observation, men, practice, &c. Such is the value of knowledge. Of course, in this country a gardener does not expect the honor of Knighthood, but if he will, "a man can be a man for a' that." I do not know of any trade, business, or profession, which presents more seductive allurements for the acquisition of knowledge than that of a gardener. There is hardly a tree, plant, or shrub, which he has under his care, but has some beautiful association. Why even the name is suggestive—it reminds us of some eminent person, place, or event. Take one or two plants for illustration—*Gardenia Fortunii*, *Abies Douglasii*, *Tropæolum Lobbianum*, *Acacia Drummondii*. Who are these individuals whose appellations these plants assume; are they alive, or dead; and where did they travel? Some are no more; but the majority are alive, and still actively engaged in the field of operations. The first travelled in China and has introduced during the past eight years some of the most beautiful plants that ever graced shrubbery or parterre; the second in Oregon, California, &c., and met with an untimely fate; the third in Chili, the Andes, and Patagonia; the last in Australia. If geography was not taught at the school our supposed inquirer attended when a boy, he will of course have but a vague idea of the exact longitude and latitude of the above-mentioned localities. If this is the case, he can borrow, or for a few shillings buy, a good geography, with maps. A few hours each evening for a week, with this before him, and he will become familiar with the above places—not only with localities, but with the climate, products, natural history, commerce, political institutions, &c. I feel confident that many gentlemen would tender freely the use of their library to the gardener, if he only manifested a desire to avail himself of its benefits. Some of my gardener readers may smile, perhaps, and shake their heads, saying, "You don't catch my boss lending me books to waste his time with." I would say to such "bosses," if such there *are*, that they mistake their own interests. At any rate, I consider that an illiterate, coarse, vulgar man, is an evil on a place, especially where there are children: and such a course of reading that I would recommend, would not, as some may suppose, make him lazy, effeminate, or too sentimental.

We all know how susceptible and plastic the minds of the young are—more inclined to imbibe evil than good. Then children must be frequently out doors, and in the garden; and they will soon learn, and make use of, all the vulgar slang they may hear from the gardener, or other men. How necessary, then, it is that he should be a man of good address, moral and exemplary in his character, eschewing everything in the shape of vulgarity that would tend to contaminate or vitiate their taste. Let him converse with them about the plants and flowers, pointing out any remarkable characteristics or peculiarities they may possess; or bring them a nosegay from the woods, the genuine denizens of the place, tell them their names, and the meaning or etymology of these names. By these means he may possibly implant a taste for the study of botany—an accomplishment which it is to be regretted so few young ladies in this country attach to their catalogue of studies. Services and attentions of this kind rendered to the children, would not, I think, in all cases pass unnoticed by the parents.

The education and qualifications of gardeners ought to claim more attention at the present time than it does. Look at the numerous dwellings—country seats—that are springing up like magic in every direction, many of them first class houses, and grounds corresponding in extent. The best talent the country affords is secured for the building—nay, even Europe perhaps is ransacked for a suitable design; but the garden and grounds—who is to be the architect of these? Alas! too frequently a person called a gardener, who receives for his services $25 per month, with a shanty to live in, and what few refuse vegetables he can pick up after the family is supplied; while perhaps the architect of the building is receiving eight or ten times the amount for the same space of time: and what is the result? Just what ought to be anticipated—the place in all probability divested of its primitive and natural beauty—fine old trees, which stood just in the proper places, cut down, elevations levelled, and other errors perpetrated; all which might have been avoided by the exercise of a little good taste and judgment, which could have been purchased for a few more dollars.

A good gardener, if he aims at landscape gardening, ought to possess the feelings of a

poet, and the eye and taste of a good landscape painter. Some of my readers may think I am now going too far. I do not expect a gardener to be a poet or a painter; but how can a person totally devoid of the above desiderata make a tasteful and judicious disposition of the place—the trees, knolls, dells, glens, shrubs, flowers, &c., so that they blend, contrast, harmonize, and afford for contemplation the greatest amount of pleasure the place is capable of. How can this, I say, be successfully accomplished by a man of uncultivated mind, who is incapable of being impressed by the beautiful in nature and art? Why I have seen some gardeners pass and repass *(without even noticing them)* magnificent specimens of trees, &c., while the same would have struck others speechless with admiration. There are many gardeners who partake too much of the Wall street mania, viz., too much absorbed in dollars and cents, to the exclusion of much else which is equally valuable and important; they allow themselves barely enough food to satisfy the demands of nature, and only raiment sufficient to keep them from a state of nudity. Now it is highly commendable in any man, especially a gardener, who is seldom overpaid, to be prudent, provident, careful, and even rigidly economical in his expenditures; but when this is allowed to merge into meanness and parsimony, it contracts the soul, and mars and deforms his better nature. Such men cannot see beauty or utility in anything unless real profit issues from it in the shape of dollars and cents. A gardener of this character cannot afford to take an horticultural magazine, attend an exhibition, or go a few miles to see a fellow gardener or a nursery. "*Cui bono,*" says he, "it wont pay." I would ask such a one, what pay or profit the naturalist, the botanist—the real lover of plants—expects, when he travels on foot long miles on hot summer days, to seek his favorites in their native haunts? Ask one of these devotees, and he will tell you that the smiles of such little gems as Hepatica, Viola, Claytonia, Saxifraga, &c., after a long and dreary winter, afford him as much real pleasure as the welcoming of a loved brother, sister, or any other dear friend, after a twelvemonth's absence. But the individual who makes the dollar his idol, is dead to such impressions.

It may be thought by some of my readers that I have been too severe on the gardener, in the foregoing remarks: but it must not be supposed that I class all gardeners alike—no, there are not a few who are a credit to themselves and an ornament to their profession; it is to the laggard, the self-sufficient, the drone, the sloven, that I would address myself. 'Tis these, often, who bring obloquy on the rest—one bad gardener will often be the means of bringing disgrace on the fraternity. Rouse up, then, brothers—for I am one of you, (bad or good I do not say,) my interests identified with yours,—let us see if we can not raise ourselves a little in the social scale. I know one thing, and that is, if we are not the meanest men, we are the meanest paid men of any class in the country, considering what is required of us. But let us examine, and satisfy ourselves that this short pay is not the result of our own shortcomings; let those who employ us see that we have *mind and intellect*, as well as bone and muscle. Till they perceive this, they will not consent to place us in any other class than the one we are arranged in at the commencement of this chapter.—*Horticulturist.*

FUTURE HOUSEKEEPERS.—We sometimes catch ourselves wondering how many of the young ladies whom we meet with are to perform the part of housekeepers, when the young men who now eye them so admiringly have persuaded them to become their wives. Taper fingers and lily-white hands are very pretty to look at with a young men's eyes, and sometimes we have known the art'ess innocence of practical knowledge displayed by a young miss to appear rather interesting than otherwise. But life is full of rugged experiences, and the most loving, romantic, and delicate people must live on cooked or otherwise prepared food, and in homes kept clean by tidy and industrious hands. And for all practical purposes of married life, it is generally found that for the husband to sit and gaze at a wife's taper fingers and lily hands, or for a wife to sit and be looked at and admired, does not make the pot boil or put the smallest piece of food in the pot.

HORTICULTURAL.

THE culture of Roses is one of the pleasantest and surest kinds of floral labor. We give below a description of the mode of procedure which will secure flowers out of season. We find it in the (Eng.) *Gardener's Chronicle:*

Culture of Roses in Pots.—No person possessing a taste for floral beauty or fragrance can be insensible to the attractions of the Rose; and its praise has been so often told that it need not be repeated here as an excuse for offering to those of your readers who stand in need of such information, directions how to grow and flower it in pots, so as to be able to enjoy roses during the winter months. It is not very many years since it was considered impossible to produce good specimens of roses in pots, and in those days gardeners who could place a few sweet rose blossoms in the Christmas bouquet, were thought more than ordinarily clever: and as to keeping up a succession of handsome, well-bloomed plants in the flower-house during the winter and spring, that was not so much as dreamed of; for the few flowers obtained were produced by leggy and all but leafless plants, which were not fit to be seen, even amongst such examples of cultivation as the plant-houses of twenty years ago afforded. Now, however, thanks to the all-prevailing spirit of improvement, it is not unusual to see, in well-managed collections, specimens of Roses in bloom at Christmas, such as would not disgrace the rose-bed in June, and these are obtained at as little trouble or expense as is required in the production of many other plants which are commonly grown for winter flowering, and which possess neither the beauty nor the fragrance of the rose. To have well-cultivated, well-bloomed specimens at Christmas, the plants must be previously managed with a view to this end, and persons commencing this kind of culture will probably have to provide a stock of plants- I will begin with directions for propagation. The varieties best adapted for winter-flowering are Bourbons, Teas, and Hybrid Perpetuals, which are better on their own roots than budded, and they root very readily, especially when good strong cuttings can be obtained early in the spring from plants growing under glass. Short-jointed, stiff pieces of the firm young wood planted in sandy soil, covered with a glass, and set in a shady corner of a warm house for a week, and then placed in a bottom heat of about 75° or 80° will be rooted and ready for potting singly in small pots in little more than a month. Indeed, I find the rose to strike so freely from cuttings under glass in early spring, that, when I obtain a variety which I wish to increase as fast as possible, I place it in a growing temperature in November, and when I have got a fair amount of growth in a proper state for cuttings, the plant is cut up: and well-ripened shoots, on which the eyes may be about an inch apart, are divided just above each eye, by which means each eye is made to form a cutting. By this method, however, the wood must be rather firmer than is necessary where two or three eyes are allowed to a cutting, as it is necessary to cut in a slanting direction on the side opposite to the leaf for about half the length of the cutting, removing the bark and a thin shaving of the wood; this exposes a large surface of inner bark from which roots are ultimately emitted, and cuttings prepared in this manner will be found to root very freely, and form equally good plants as those having two or more eyes. It must be observed, however, that the success of this, as of all methods of propagation by cuttings depends upon selecting wood in the proper stage of maturity, and how to do this can hardly be learnt except by practice. But to return to our rooted cuttings. These should be potted singly in four inch pots as soon as they have become sufficiently strong to bear handling (using good fresh loam and decayed leaf-soil in about equal proportions, with a liberal mixture of sharp clean sand,) and placed in a close moist atmosphere till well established in their pots. They may then be removed to a light, airy, and rather cool situation, with a view to induce close stocky growth; for, let me remark, there

will be nothing gained by keeping the plants, after they are well established in four-inch pots, in a higher average temperature than 55°. It will doubtless be necessary, in order to secure a bushy habit of growth, to pinch off the top of the first shoot, and this should not be done until the plants are removed to a cool situation, nor while the eyes at the base are flat and imperfectly matured, otherwise the probability is that the top bud only will start. As soon as the plants are well rooted in their first pots, shift into others one or two sizes larger, as circumstances may point out; and when moderately well-rooted, after the second shift remove them to a cold frame, and gradually inure them to full exposure to sun and air, merely protecting them from heavy rains and cold drying winds. During the summer months, a liberal supply of water must be given to the soil, using weak manure-water twice a week, and the plants should be syringed morning and evening during bright weather, and shifted into larger pots as may be necessary. Stop any gross, over-luxuriant shoots, and have a constant eye to the formation of dwarf compact specimens; also guard against the attacks of aphides, which will probably be somewhat troublesome, but they are easily destroyed by means of tobacco-smoke, and therefore should not be allowed to disfigure the plants. During summer, plants, that are established after the first shift will be better removed to a warm sheltered corner out of doors, placing the pots on a bed of coal-ashes, to exclude worms, and where they will enjoy the night dews, and will not be so liable to be attacked by the red spider as if retained under glass With good management, many of the plants should be nice compact specimens in seven-inch or eight-inch pots at the end of the first season's growth; and the Teas and Bourbons, if removed to a close pit or frame early in autumn, will continue growing and afford a succession of blossoms throughout the winter and spring months. But, where handsome specimens are desired, it will be better to afford the plants a second season's growth; as allowing them to flower would retard their progress the following season.

HELIOTROPE.

Many varieties of the Heliotrope have been introduced to cultivation within the last few years, but, taking all things into consideration there is perhaps none more desirable than the old well-known H. Peruvianum, a universal favorite on account of its delicious fragrance, which, combined with its free growth and profuseness of bloom, makes it a very desirable plant for furnishing bouquets during the winter months. By keeping up a succession of healthy young plants, flowers may be obtained at all seasons, with the aid of a warm green-house in cold weather. As a plant for the flower-beds during summer, it grows luxuriantly, provided the soil is moderately enriched. It is however very susceptible of cold, and will show the effects of a slight frost sooner than almost any other shrubby flower-garden plant It is indeed an easily managed plant; cuttings of it will strike root at any season, and grow in any ordinary garden soil. To secure plants of sufficient strength to flower during early winter, cuttings should be inserted in June. They will form roots in two or three weeks at this season, if inserted in a shady situation; they should immediately be placed in small pots, and when these are filled with roots, shifted into flowering pots; eight-inch pots will be sufficient in size. They now require to be grown in a situation fully exposed to the sun, and if the pots are plunged to the rims, less water will be required and the plants otherwise benefited. The roots of plants in pots fully exposed to the action of the sun and atmosphere are very liable to sustain injury. A few hours' neglect in watering will counteract the progress of weeks. The young, incipient points of roots are so easily destroyed that nothing short of the most vigilant attention can keep plants in a vigorous state when the pots are thus exposed. Hence the necessity of plunging the pots, that evaporation from their outer surfaces may be prevented. This is more especially necessary with pots of a soft or porous character. Hard burned-pots are condemned by many, for what reason I do not know. So far as my experience goes, I decidedly prefer pots glazed on the outside, both on account of the benefit they confer on the plant, and their freedom from becoming green and unsightly when placed in a warm, humid atmosphere. This latter circumstance alone is worthy of consideration.

When the plants are removed into the green-house, they should be placed in the warmest position, near the light, in order to flower them freely. Plants that have been growing in the flower-beds during summer, lifted and potted before frost, will commence blooming in early spring. As a permanent climbing plant, for a green-house or conservatory, it is worthy of notice. When once properly established in such a position, it will keep in flower during the year, and speedily cover a large surface if allowed sufficient root-accommodation.

Selecting a Horse at Buenos Ayres.—The next morning we rode out before sunrise, and found the horses collected in the middle of the plain—a drove of about 1,400 stallions, mares, and foals—all together. The owner was there; and two of his men, by riding round the horses, easily kept them together. They did not attempt to break away, but now and then 30 or 40 would run round in a body, disturbing the rest and raising a cloud of dust. The owner said he did not know how many he had, but that he had a great many. These being all unbroken, none of them would suit us, so he said he would have a small lot of good broken horses driven in from another place. We returned to his house, and in a short time saw the horses approaching, looking at a distance like a long black streak on the plain. There was a good deal of mirage floating about, and sometimes they appeared to be skirting a large lake; sometimes the plain seemed bounded by steep cliffs, reflected in the water; then all would change again and vanish. At last the horses arrived, and were driven into the corral. There were about 200 of them, mostly black and brown. We chose three tall black horses, and they were soon lassoed and sent to Buenos Ayres. The cost, £5 each, was considered a high price—*A Sketcher's Tour Round the World.*

THE USE OF FRUIT.

Because bowel complaints usually prevail most during the hot season of the year—the latter end of summer and autumn, when fruit is most abundant, and in tropical climates where fruits are met with in greatest variety—it is inferred, according to the *post hoc propter hoc* mode of reasoning, that the one is the consequence of the other. It were about as reasonable to attribute the occasional occurrences of sea-scurvy in the navy to the use of Lemon juice, Lime juice, or potatoes. These articles of diet are powerfully anti-scorbutic, and so are ripe fruits anti-bilious; and diarrhœa, dysentery, and cholera are complaints in which acrid and alkaline biliary secretions are prominent conditions. I have seen many cases of dysentery, obstinate diarrhœa, and liver disease in people who have been long resident in tropical climates, and, from the history which I have been able to obtain respecting their habits of diet, I have come to the conclusion that these diseases were induced and aggravated, not by the light vegetable and fruit diet most in use among the natives, but because Englishmen usually carry out with them their European modes of living. They take large quantities of nitrogenous and carbonaceous food, in the shape of meat or wines or spirits, rather than the light native food, as rice and juicy fruits, and the vegetable stimulants and condiments, the native peppers and spices so abundantly provided by Nature. It is well known that, though large quantities of animal oils and fats, wines, spirits, and malt liquor, which contains a large amount of carbon, may be consumed with comparative impunity in cold climates and in winter, when the carbonaceous matter gets burnt off by the more active exercise and respiration; in hot climates and in summer this element gets retained in the liver, and ultimately gives rise to congestion of that organ and its consequences—diarrhœa, dysentery, and bilious disorders. Though in extensive practice for fifteen years, in a district abounding with orchards and gardens, I can not remember an instance in which I could distinctly trace any very serious disorder to fruit as a cause; though one might reasonably expect some mischief from the amount of unripe and acid

trash often consumed by the children of the poor. I would not be supposed to advocate either immoderate quantities of the most wholesome fruit, or the indiscriminate use of unripe or ill preserved fruits. But I do contend, as the result of my own experience, that not only is a moderate quantity of well ripened or well preserved fruit harmless, but that it is highly conductive to the health of people, and especially of children, and that it tends to prevent bilious diarrhœa and cholera. I am inclined to view the abundant supply of fruit in hot climates, and during the summer and autumn, and the great longing of people, especially of children (in whom the biliary functions are very active), for fruit, to a wise provision of an over-ruling and ever-watchful Providence, which generally plants the remedy side by side with the disease, at a time when the biliary system is in most danger of becoming disordered. I have generally observed that children, who are strictly, and I think injudiciously, debarred the use of fruit, have tender bowels, and I have noticed that they are almost universally pallid; while, on the other hand, children, who are allowed a moderate daily proportion of sound fruit, are usually florid, especially among the poor, I therefore imagine that the use of fruit facilitates the introduction of iron, the coloring principle of the blood, into the circulating system. When living in the country, with the advantages of a large garden and plenty of fruit, I always allow my children a liberal proportion, and never had occasion to treat them either for diarrhœa or skin eruptions, though it is a very common opinion that cutaneous diseases are often brought on by the too free use of fruit. On first removing my family to town, the usual supply being cut off, two or three of the younger ones became affected with obstinate diarrhœa and dysentery, which resisted all the ordinary modes of medicinal treatment. My opinion on the subject afterward induced me to give them a good proportion of fruit every day, as Grapes, Oranges, ripe Apples, &c., when all the symptoms presently subsided, and they have never since been troubled either with bowel complaints or skin eruptions to any noticeable extent. The editor of the *Lancet*, in animadverting on the "health of London during the week ending August 20," makes the following remarks: "The deaths ascribed to diarrhœa are 126, of which 115 occurred among children. The tender age of nearly all the sufferers, 97 of them not having completed their first year, is sufficient to dispel the popular error that the use of fruit is the exciting cause." Several years ago a serious and very fatal epidemic, then called "English cholera," prevailed in the neighborhood where I was living. It chiefly attacked very young children and old people, and was almost as rapid in its progress as the Asiatic form. This epidemic occurred in the autumn, and many people influenced by the common prejudice, dug holes in their gardens and buried all their fruit, and some even went so far as to destroy their trees. I made many inquiries as to the previous habits of the victims of this epidemic, and in almost every case I learned that fruit had not for some time previously formed any part of their diet. One writer in the *Lancet* has strongly recommended the use of baked fruit as a preventive of cholera, and another has strenuously advocated the administration of diluted sulphuric acid during the actual attack, and the proofs brought forward of their good effects correspond with my own experience. It is asserted that the cholera has never yet prevailed in the cider counties, nor in Birmingham, where acidulated treacle beer and sulphuric acid lemonade are freely used to obviate the poisonous effects of white-lead in the manufactories.—*M. D., in London Times.*

As the season of sowing is approaching, we may again remind our farmers, as we have before, of the importance of cultivating the hemp. In consequence of the disturbance of our relations with Russia, and the interruption of its commerce, hemp has risen to a very high price, and is likely to rise yet higher.

The value of this article is so great, namely from £60 to £70 the ton of 2200 lbs. avoirdupois, that even on the worst of roads the carriage is no object. We apprehend that had as the country Canadian roads are, the Russian are worse, and yet it is exported from the very remote interior.

The hemp (*canabis*) though not indigenous to Canada, grows here freely and spontaneously. It sows itself. It may be seen for instance, on the mountain of Montreal, a stunted plant, with a profusion of white seeds. But in richer situations it rises four to five feet, and covers the ground with its foliage.

We never heard of any of the seed of hemp being saved in Canada, but it is very easily procured. Hemp to be productive requires a very highly manured soil. It is a very exhausting crop and requires to be rotated with other crops. The exhausting principle will not answer with it any more than with wheat.

STEAM PLOUGH.

We, *Montreal Herald*, have had the pleasure of inspecting a model of this invention—Canadian invention as we may call it—since its author is Mr. Romaine, formerly of the *Canada Gazette* office. Plough is not a word that makes the character of the machine very well understood. It should rather be called a digger, or a forker, since that part of it which is intended to turn the soil consists of a number of prongs fixed on a sort of barrel, by the revolution of which they are made to enter and to turn up the earth. The hollow barrel on which these are fixed, is made to revolve by a steam engine of peculiar construction, which may, perhaps, be well enough named the perpendicular. The steam boxes and valves being all fixed to the side of a boiler, which is set up one end over the fire in a cart attached to the plough. Thus, instead of the alternate rising and falling of the diverse ends of a beam hung from the centre, as we see in steamboats, the first motion created by the issuing of steam from the boiler is that of a bar which rises and falls perpendicularly. It will be easily understood that this form of engine is exceedingly compact, requiring, in fact, hardly any more room than is necessary for the boiler itself. In rising and falling it communicates a circular motion to the cranks, which turn the toothed barrel The locomotive power is given by horses, which are attached by shafts to the cart in which the steam engine is to be carried, and which, as we have said, is attached to, but does not form part of the plough. There is, therefore, no gearing from the steam engine to the locomotive wheels of the machine: all the power generated by the boiler is employed in turning the digger. There is a large screw going up through the centre of the plough, by which the toothed barrel may be raised or lowered so as to make a mere scratch, or to dig well below the surface. To the plough a sowing machine may be attached, which will sow the seeds in perfectly regular rows, and at the same time roll them in. Thus, by a pair of horses, it is supposed that ten acres of land may be ploughed, seeded and rolled in one day.

Mr. Mechi, the eminent English agriculturist, has, we understand, a large share in the patent rights, which have already been secured in Europe, and the Colonies, and which Mr. Romaine is now engaged in securing in the United States.—It is said that Major Campbell is likely to make a trial of the plough, so soon as its qualities have been tested in England. We heartily wish success to our fellow citizen and fellow craftsman in the important industrial revolution, which he seems so likely to bring about.

We do not think there is any thing very novel in the construction of the engine, for ingenuity has been exhausted in modifying it. We are not aware of any real improvement since the time of James Watts, except the horizontal direct action on some steamboats on the American rivers.

But what is really novel and ingenious is the making the steam-engine not the means of locomotion, but merely of tilling the soil. The great difficulty has been to get the steam-engine to move, but on a railway. A very ingenious person, some years ago,

Mr. Goldsworthy Gurney, contrived an engine which laid down its own rails, but it does not answer. At an earlier period people were so distrustful of the tractile powers of the steam-engine, that they constructed engines with toothed wheels, and laid down toothed rails for them to fit into. We ourself recollect seeing the remains of a railway of that kind at Queen's Ferry, near Chester, which was constructed by Mr. Boydell, an engineer of much eminence in his day.

It was on the Stockton and Darlington Railway that it was first discovered that a locomotive had a "bite" as it is called, quite sufficient for its progression.

But this is clearly inapplicable to a ploughed field. A locomotive would simply revolve its wheels without being propelled an inch. The mode hitherto adopted, has been to erect posts and let the engine wind itself up by a strong tackle. But this has never answered in practice.

Mr. Romaine's invention seems to us much more promising. It combines the tractile force of the horse with the mechanical power of the engine. Its economy will very much depend on the relative price of fuel and of human and horse labour, and the amount of capital at the farmer's disposal. One thing, however, is certain, that to apply it, the field must be cleared of the boulders which disgrace so many of our farms If the engine encountered a lump of granite of a ton weight, it would be shattered by the concussion.

PROVINCIAL EXHIBITION.—We are happy to learn that the arrangements for the Provincial Exhibition of Industry appointed to be held here in September next, are being proceeded with rapidly. We expect, in a short time, to be able to address the public on the subject. Besides a grant £3000 by the Corporation of the City, the Corporation has very kindly acceded to a request on the part of those interested, granting the use of their property on the Grande Alleé road, containing upwards of 40 acres of ground, and in every way eligible for such a purpose, having a splendid view of the river St. Lawrence, with the Plains of Abraham in the distance. The City Fathers have also given the Exhibition Committee the use of a very handsome room in the fire-engine building in St. Ursule street, for the purpose of an office. —*Quebec Observer.*

WESTERN AGRICULTURE—CORN COBS.

I made a flying visit to our old friend Henry L. Ellsworth, of Patent Office memory, one day last month. He is now a resident of La Fayette, Indiana, where he is farming prerty largely on the Prairie, about seven miles out, on which he has a thousand acres of indian corn in one field. The uncommon high prices of corn last summer has been the cause of planting many an extra acre of it in the Wabash Valley, where, if it ripens well, it will tell a pleasing tale, not only to the cultivators, but to the starving millions of Europe.

Mr. Ellsworth is as full of enthusiasm as ever, and no less busy than he was in his office at Washington. He is an owner and manager of a vast amount of land, which he is selling, leasing, and improving, and which, together with all the business operations that he is carrying on, keeps his office crowded with the multitudes who deal with him. Yet he finds time to be continually trying some experiments, for the benefit of the agricultural community.

I saw six pigs in as many pens, just big enough to hold each occupant without exercise, which he was feeding on corn in the ear, corn ground, but fed raw, and corn-meal made into mush—two upon each kind. The pigs were all alike in age, breed, size, and weight, when commenced with, and after being fed a certain time with carefully weighed quantities of food, they are re-weighed and weights noted, and those which had been fed upon one kind, are changed to another and so on; and when the experiment is finished, he assured me would publish the table. The experiment thus far is very largely in favor of the mush, bidding fair to produce enough to pay toll and trouble for grinding, as well as for cooking, and leave a profit. The number of pounds of good thick mush that one hundred pounds of meal, well worked, will make, is astonishing to any one who has never thought much upon the subject. It will not fall much, if any, short of *six hundred pounds.* Mr. Ellsworth's kettle holds just 14 lbs of meal at a charge, and several accurate weighings give over eighty pounds when well cooked, and I saw myself that no more water was used than the meal would absorb. But it must be cooked—not merely scalded. A little salt is added, and occasionally a little sulphur.

Mr. Ellsworth assured me that he proved the mooted point of nutritive food in corn-cobs. He says, "*hogs will live and thrive upon well ground cob meal alone!* At first they did not take hold. I then added a small quantity of meal of the grain, principally of the grain, and then they ate the whole, and did well. I had great difficulty in getting the cobs ground. Millers are so well satisfied in their own minds that cobs are good for nothing, that they are not willing to let the experiment be tried whether they are nourishing or not. I am satisfied that twenty-five pounds of corn meal added to one hundred pounds of cob-meal, is more valuable for feed for *growing* stock, than seventy-five pounds of corn-meal alone." Such is the language of Mr. Ellsworth. Experiments of this kind should be further tried. One-fourth of the weight of a bushel of ears of corn nature never intended should be thrown away, and cobs upon large corn-farms in the West are literally thrown away. They are neither used for food, fuel, nor manure; for the latter is considered a nuisance.

After my visite to M. Ellsworth, I met with our old friend, Mr. Colt, of New Jersey, at the great Chicago Convention. Owing to the vast crowd of people and business, I did not have the opportunity that I wished, to gleam intelligence from so enterprising a Jersey farmer as he is well known to be; but as a matter of course, the things that our minds most did dwell upon were discussed over the dinner table, where I mentioned my conversation with Mr. Ellsworth, upon the subject of corn-cobs, and my belief that they would be highly advantageous to feed in small quantities to all kinds of stock, solely on account of the alkaline properties that many an ancient dame knows that they possess. For oft she has made cob-ley when pearlash was high; and even if a little should be mixed in human food it would not injure it; and in the stomach of fattening hogs particularly, it would prove an excellent corrector of acidity. This idea was nothing new to so inquiring a mind as that of Mr. C., and he told me that he had tendered a donation of one hundred dollars to the American Institute, for a complete analysis of corn-cobs, so as to prove whether there was any nutritive quality in them.

But my opinion is, that if the hundred dollars were spent in actual experiments of feeding live stock with cob-meal, a much more satisfactory result might be arrived at, than can possibly be done by any chemical analysis. If Mr. C. himself will undertake the matter, I am sure that he will prove some facts of vast importance to the corn growers of the United States. Where cobs are to be had in vast quantities, if they were used as fuel and the ashes carefully saved, I have no doubt that they would be found more than twice as valuable as wood-ashes for any purpose. If cobs are not worth feeding to stock, and not of sufficient value as manure or fuel, to be worth saving, then I am greatly mistaken, and hope to have my mind enlightened with the truth; and when that is done I shall not feel so grieved to see this bountiful produce of nature lying knee-deep across the public highway in front of the door of many a hog and hominy farmer of the West. But enough about one of nature's productions which the world estimates as good for nothing.—*American Agriculturist.*

Captain M'Duff, the Duke of Atholl's agent, writes to Mr. Dixon, of Hopwood: —"Very singular, there has not been such

a thing as a diseased potato in this district the last season." Mr. Dixon was at Blair Atholl in the autumn of 1852, and inspected the Duke's home farm, when nearly the whole crop of potatoes grown there had been destroyed by disease. Two loads of potatoes, of the fluke variety, were sent from Hopwood to the Duke of Atholl, and these were planted last spring; they have done very well, and the produce from them is being kept for seed.

FLAX CULTURE.

Messrs. Editors.—If the present duty on imported flax should escape reduction or abolition during the current session of Congress, there seems to be a good prospect that the growth of flax may soon become a more common, as well as a more profitable employment. Linens and other fabrics from flax, are getting into a more general use; and a market for flax is much more accessible than it was a few years ago. A company was some time ago organized at Fall River, Mass., for the purpose of spinning and weaving flax into the various fabrics which are manufactured from it. "The American Linen Manufacturing Company" has been in operation now about one year, and finds itself cramped in its operations for the want of sufficient quantity of the raw material. To do something towards the supplying of this want a gentleman connected with the "American Linen Manufacturing Company" at Fall River has made a journey through some of the western states, with a view of inducing farmers to engage more extensively in the growth of flax, inasmuch as this company will supply a larger market than has heretofore existed in the United States. In a letter addressed to Governor Wright of Indiana, he says that the Am. Lin. Man. Co., expects to consume in the ensuing twelve months, over six hundred and fifty tons of flax fibre; and that when in full operation, it will consume annually over one thousand tons, or two millions of pounds. For want of a home supply the company has been obliged to import, during the first year, over one hundred tons, or two hundred thousand pounds, at an expense of over $30,000.

It appears from the letter above referred to, that flax is cultivated to a considerable extent in Indiana and Ohio, but principally for the sake of seed. The stalk and its fibre are generally wasted and thrown away. Now that a home market is provided, the fibre will be saved, making the crops of flax in these States much more profitable, and leading to a much more extensive cultivation of it.

In regard to the profits of flax culture we glean the following chiefly from the letter of the agent of the Am. Lin. Man. Co., to which we have already referred. He states that if farmers would prepare their soil *well*, and would then sow two or two and a half bushels of seed, they would obtain twenty bushels of seeds, and two to two and a half tons of flax straw to the acre. In Ohio and Indiana, for the want of proper preparation, an average of only ten bushels per acre is obtained, and about a ton or a little more of flax straw. This small yield is attributed to poor preparation of the soil, and to thin sowing. Every ton of straw, the agent says, yields three hundred pounds of flax fibre, so that those who were at due pains to raise the large crops above named would have, after rotting and scutching, about six hundred to six hundred and fifty pounds of marketable flax fibre. "For this fibre," says the agent in his letter to the governor of Indiana, "we would gladly contract for two years to come, at the rate of 12½ to 15 cents a pound (250 to $300 per ton,) according to quality. It costs us this price, cash, to import it, and we should much prefer paying it to our own industry."

That these estimates, as to the yield of a flax crop, are not materially exaggerated, we infer from a communication from Mr. W. G. Edmundson, of Iowa, in the volume of the *Cultivator* for 1852. Mr. E. there states that he has grown flax quite extensively, finding little difficulty in growing it on a rich soil preceding wheat. He says that with proper cultivation there is no difficulty in raising from 15 to 20 bushels of seed, and from 300 to 400 lbs of good clean scutched flax to the acre. The seed may generally be sold for $1, or $1,25, and at almost any distance from Fall River or other market, the fibre may be sold for at least 10 cents per lb. At these rates an acre will yield from $45 to $65; or, after making a large allowance for harvesting, rotting, scutching and cleaning, a clear profit of $30 to $50 per acre. This is fully better than raising wheat even at the present high prices.

As many will be induced by such considerations as the foregoing, to engage in raising crops of flax, you will oblige your readers, Messrs. Editors, by collecting and publishing all the *reliable* information you can procure.—*Observer.*

Thomas Tusser.—A mural tablet has lately been placed in the church of Manningtree parish, on which is inscribed the following merited tribute of respect to the memory of this good old writer on agriculture in the days of yore:—"Sacred to the memory of Thomas Tusser, gent., born at Rivenhall, in Essex, and occupier of Braham Hall, near this town, in the reign of King Edward the sixth, where he wrote his celebrated poetical treatise, entitled *Five Hundred Points of Good Husbandry, &c.*" His writings show that he possessed a truly Christian spirit, and his excellent maxims and observations on rural affairs evince that he was far in advance of the age in which he lived. He died in London, in 1580. Among those who have given favourable testimony with reference to the writings of Tusser may be mentioned that of Mr. Robert Baker, of Writtle, whose observations on subjects relating to agriculture are always entitled to consideration. At a recent meeting of the London Farmers' Club he thus expressed himself:—"In the earliest period of farming history, the earliest writer upon the subject was Thomas Tusser, a native of Rivenhall, in Essex: in quint quartain verse he reduced the first principles of farming to rhyme; and most of the adages and proverbial expressions found in later writers originated in him. The collection published by Franklin in "Poor Richard's Almanack are nearly all derived from Tusser: but in a quaint emblem published after his death by Quarles, in which a scythe, and whetstone appear, are several verses showing that what a whetstone is to a scythe, such was Tusser to other farmers' minds. Though blunt himself he sharpened other men's wit: and though a rolling stone that gathered no moss, he taught thrift and good management to others. In fact, he was more, for the time, learned than practical, and as it is said a love of money and a love of literature never exist together, so it is feared that many of our best practical writers upon farming are not the best managers of their farms. This is said to apply especially to the late Arthur Young." It is obvious that it was not quite fair on the part of Dr. Franklin to slightly alter the wise saws and pithy precepts of our worthy old countryman, and then publish them as his own, thus resembling the bird in the fable, which made, a display with borrowed plumes.

That eminent statesman and friend to agriculture, the late Lord Western, once made an interesting observation relative to Tusser. His lordship remarked, "That the first time he met with a copy of his work he could not refrain from sitting up the greater part of the night in reading it;" adding "he was surprised to find that so little difference existed between farming at that time and the present."

Extraordinary Prolific Cow.—A half horned red cow, the property of Mr. John Marshall, Bull Head Inn, Ripton, Derbyshire, calved on Wednesday, the 18th instant, no less than five calves (four bull-calves and one cow-calf). The cow and her progeny are now doing extremely well. The calves are nearly of the ordinary size, feed remarkably well, and are very lively. There is now not the slightest doubt but they will be reared, and that opinion is shared by many of the first breeders in the county who have seen them. The bull, a short-horned roan, two years old, is the property of Mr. Seth Smith, and the veterinary surgeon who attended the case was Mr. John Perry, both gentlemen being residents of Repton. This is the most extraordinary case on record, no cow having calved more than four calves, and in no instance have they been reared. The cow and calves may be seen at the Bull Head Inn, Repton, near Burton on Trent.—Jan. 23.

The estimated sales of beef cattle, stores, sheep and swine at the Brighton market during the past year, amounted to the large sum of $5,051,362—exceeding by more than one million and one hundred thousand dollars the sales of the previous year.

FARM HORSES.—Since in the blood horse is found the peculiar attribute of the horse in its highest perfection, too much can hardly be said of the importance of a liberal dash of blood in all grades of horses. On the road it is necessary, and at the plow or the truck it will tell wonderfully. The farmer, with half or three quarter bloods, can plow his half acre a day more than with common farm horses. He can safely reckon that his *blood* will haul his load some miles farther in a day than a common team. This is so. Theory points to it, and experience has proved it; and if the farmer can actually increase the value and efficiency of his motive power, without increasing the number of animals or expense in rearing and keeping, is it not as much a matter of good policy and good husbandry so to do, as to improve his land, and raise large crops by extra manure and extra tillage? Certainly it is; and while it is expensive at the outset to improve land, it costs no more to raise a good horse than a poor one.—*N. Y. State Ag. Society's Transactions*, 1851.

BLOOD AS A MANURE.—As Mr. Way observes, "this manure is disregarded." This is true in point of practice, but not so in the knowledge of the scientific farmer; the fact is, we cannot obtain it; it is a most invaluable manure, and we know by the application of blood absorbed by ashes, road scrapings, soot, &c., drilled with turnips and for wheat, the yield of the latter was 40 bushels an acre, and the turnip crops magnificent. If slaughter-houses were provided with large tanks to receive the blood, and ashes, soot, &c., mixed with it, any farmer would be glad to give 10s. a cart-load, if not more, for so valuable a manure, much of which finds its way into our rivers. All gardeners know the value of blood when applied to the roots of the vine.

THE SAXON INVASION.

All the Galway papers speak in the most sanguine terms of the state and prospects of agriculture in that district. The weather has been everything the farmer could desire, and, to the great delight of every true "Paddy," confidence is beginning to be re-established in his potato. "It is pleasing," says one of the journals, to "witness the enthusiasm with which the old favourite root is being committed to the soil." Meanwhile, as a foretaste of what may be expected in the way of solid improvement by the importation of a "foreign" proprietary, the *Western Star* reports as follows:—

"One of the most striking features in the agriculture of this district is the magnificent style in which the West estate, now the property of Mr. Arthur Pollock, is being cultivated and improved. The enterprising proprietor, we understand, intends to expend in improvements a sum equal to the purchase-money. Already stone fences are being erected on an extensive scale, and old useless ones levelled. 16 splendid brood mares of the Clydesdale breed have been brought over, and there are at present on the property 3,000 ewes, who will have yeaned before the season is ended. The amount expended weekly in labour exceeds 100*l*., and it is needless to say that the employment afforded is beneficial to the labourers of the locality. The improvements are being carried out by the clever and efficient agent on the property, Mr. John Algie, assisted by several stewards."—*Irish Paper.*

DISEASES OF SHEEP.

Sore Mouth.—This is supposed by some to be caused by sheep eating, in the winter season, noxious weeds, for it is that period of the year generally that they are the most subject to it. A correspondent of the *Cultivator* thus speaks concerning it—"It generally commenced in the corner of the mouth and spread over both lips, and the lips swelled to the thickness of a man's hand. My flock consisted of about 300, and in the space of three weeks about forty died of this distemper and not one had recovered. By this time at least one half of the remainder of the flock were attacked. It occured to me that tar would be as likely as anything to give relief. I accordingly had my sheeps all brought together, and filled their mouths, and daubed on to their lips all that could be made to stick; and, to my surprise, it effected an immediate cure. I lost but two or three after this, and these were nearly dead when I made the application. In a few days every sheep was well."

The writer, a few years since, had a few of his sheep affected in a similiar way, and inasmuch as it was confined to but one flock, he attributed it to irritating weeds cut with the hay. The application of tar to their mouths was made, as described above, which effected an immediate cure. Hog's lard and sulphur will also cure the disorder.—*Boston Paper.*

CULTURE OF THE ONION.

In compliance with the request of a correspondent for accurate and reliable information on the culture of the onion, we have obtained the following statement from Amos R. Cole, of Perinton, N. Y., who has had much experience in the field culture of this crop, and who has been more successful than any other person within our knowledge:—

DEAR SIR—The following are answers to your inquiries in the order in which you have made them:—

1. What is the best soil, and best manure for onions?

Of all the different soils, I could not name the one best adapted to the culture of onions, but we have always found a light sandy loam preferable, the darker the sand the better. The manure should be fine from the stable, put on in the fall, and we use leached and unleached ashes, mixed, well harrowed in after plowing before sowing, say 8 loads per acre. The manure, unless very fine and well mixed with the soil, is often a great obstacle in hoeing. We use little or none except in the fall and exposed to the action of the frost.

2. How prepared when sown.

We plow early in the spring about seven inches deep, harrow well, then rake thoroughly, freeing the surface from weeds and lumps. Sow as early as the weather will permit, with a good hand drill.

3. Distance of rows, distance in rows of seed when thinned, how often hoed.

We prefer about 14 inches between rows. Set them in rows when thinned from 1 to 1½ inches, many prefer 1 inch. We go through the rows, when the plants first make their appearance above ground, and cutting close leave them pretty free from weeds. Then weed thoroughly, by placing a hand on either side of the row, and with the thumb and ball of finger remove the weeds gently from the side. It depends on the land as to number of times of hoeing, whether weedy or not. But in all cases they should be hoed, and if necessary, wed whenever weeds appear which would be likely to check their growth.

4. How much seed per acre, usual amount of crops?

We usually use about 6 lbs., many say from 4 to 5 lbs., but this is rather a small amount, especially if any of it should not germinate, and very few persons after preparing their ground properly, would object to the additional quantity of seed when they consider that it is often rather uncertain, and should they sow a small amount of seed they must have a small crop. From 5 to 600 bushels is a good crop, though we have grown 368 bushels on a single half acre; about 500 or even 450 would be a very good yield.

We have a way of testing the seed by placing about a spoonful of seed in a small vessel and pouring on boiling water, and if the seed is good it will sprout in 15 or 20 minutes. If not it is worthless. The plants will also come quicker (and in advance of the weeds,) if all the seed were soaked. They must however be thoroughly dried, or they cannot be sown by a drill.

IMPORTANCE OF THE ONION.—The onion is worthy of notice as an extensive article of consumption in this country. It is largely cultivated at home, and is imported, to the extent of seven or eight hundred tons a year, from Spain and Portugal. But it

rises in importance when we consider that in these latter countries it forms one of the common and universal supports of life. It is interesting, therefore, to know that, in addition to the peculiar flavour which first recommends it, the onion is remarkably nutritious. According to my analysis, the dried onion root contains from twenty-five to thirty per cent. of gluten. It ranks in this respect with the nutritious pea and the gram of the east. It is not merely as a relish, therefore, that the wayfaring Spaniard eats his onion with his humble crust of bread, as he sits by the refreshing spring; it is because experience has long proved that, like the cheese of the English labourer, it helps to sustain his strength also, and adds, beyond what its bulk would suggest, to the amount of nourishment which his simple meal supplies.—*The Chemistry of Common Life.*

UNITED STATES AGRICULTURAL SOCIETY.

Officers for the Ensuing Year.

The officers of the United States Agricultural Society for 1854 are:

Marshall P. Wilder, of Mass. President.

19 Vice Presidents, (one for each State represented.)

C. B. Calvert, John A. King, A. L. Elwyn, J. D. Weston, B. P. Poore, A. Watts, John Jones, W. S. King, Executive Committee.

W. S. King, of Boston, Corresponding and Recording Secretary.

William Selden, of Washington, Treasurer.

CHARCOAL AND SALT FOR SHEEP.— A contributor to the North Western Cultivator writes:—"It is generally conceded that wet pastures are favourable to the health of sheep. I have kept a flock for four years on a pasture of this description—for the first two years with unfavourable results. My sheep were unhealthy and many of them died. I ascribed it to the wetness of my pasture. Upon recommendation of an old farmer I gave the sheep charcoal mixed with salt. The beneficial effects of this mixture were soon apperent. My sheep presented a more healthful appearance. I have continued the treatment, and the animals have continued to thrive. I suppose the medicinal qualities of this mixture consist in the disinfecting property of the charcoal. And in the invaluable tonic and alternative properties of the salt, we may add, for, like many other remedial agents, this article, when given in small doses, augments the digestive functions. In larger doses it is cathartic.—*Am. Veterinary Journal.*

CARROT BUTTER.

A correspondent of the *Dollar Newspaper* gives a mode of coloring butter yellow, consisting substantially of the application of a liquid at churning, made by grating yellow carrots, and after soaking in half their bulk of milk or water over night, straining through a cloth. This, we are assured, will make it as yellow as October butter, and with an agreeable flavor. Customers who buy butter of the manufacturer who furnishes the communication, much prefer this to any other. Some of our readers may think this method worthy of trial; others will prefer a modification which we have often tried with great success.—This modification differs in one particular only, yet has several advantages. The point of difference is in the *time* of applying the carrots—that is, instead of doing it at the commencement of the churning, by introducing them into the *churn*, we apply them two or three days sooner, by introducing them into the *cow*. This modification has several advantages, namely, saving the labor of grating the carrots; furnishing animal instead of vegetable butter, and nourishing the cow in the bargain.—*Indiana Farmer.*

FRENCH CANADIAN ENTERPRISE, PERSEVERANCE, AND INGENUITY——Lately, we have had occasion to speak flatteringly of the enterprise of some of our French Canadian merchants. Now it affords us unspeakable pleasure to notice, approvingly, enterprise, in a French Canadian printer—Mr. Frechette of the *Canadien*, and surprising interprise, preseverance, mechanical ingenuity and skill in plain *habitant*, Mr. Larochelle. Mr. Frechette, in the most liberal spirit, determined upon enriching his establishment with a power or steam press, and, having observed—we cannot use the words 'noticed' or 'seen' any more—the working of that beautiful machine patented by Adams' of Boston, or New York—we do not know which—he determined upon the purchase of a platen power-printing machine in preference to a cylinder, which is so much more destructive to type, and animated with the most patriotic spirit, he thought of the adage—"our ain fishguts to our ain sea maws," and entertained the idea of having his press made by a fellow countryman. Rolling the matter through his mind, he thought upon Mr. Larochelle of Etchemin, the inventor of a most ingenious self-loading, self-firing garrison gun, mounted on a traversing carriage ignorantly reported upon, a few years ago by some Artillery Officers, fifty years behind the age in their professional education, and brought that wonderfully ingenious gentleman to look at the power-press of Lovell & Lamoreux. And after carefully observing its *modus operandi*, Mr. Larochelle declared that he would make one in every respect its equal, be paid for his labour if he succeeded, and suffer the loss of material and labor if he failed. He has succeeded astonishingly. An Adams' power-press has been introduced by Mr. Larochelle of the most admirable finish, and which works with extraordinary smoothness. It is already in Mr. Frechette's printing office where it may be seen. Judges have declared it to be a first-rate piece of workmanship, and in several respects an improvement upon the original. There is therefore something go-a-head-ative in the French Canadian character after all, and it is only right that we should publish it. When rail-roads afford this class of our citizens facilities for seeing the world and obtaining knowledge, we may expect them to improve in more respects than one. We only hope that Mr. Frechette's press may never be idle, and that Mr. Larochelle may soon become an extensive mauufacturer, and so reap the reward which is due to enterprise, perseverance, skill, and industry.—*Quebec Observer.*

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Pork, 7½ to $8½ do.
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Veal, 2 to $12.
Wheat, 8s to 9s.
Indian Corn, 6s.
Rye, 5s.
Barley, 4s 6d to 5s.
Oats, 3s to 3s 6d.
Peas, 5s 9d. to 6s.
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With plain directions for obtaining a considerable Annual Income from this branch of Rural Economy; also an account of Diseases of Bees, and their Remedies, and Remarks as to their Enemies, and the best mode of protecting the Hives from their attacks. By H. D. Richardson. With Illustrations.

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Submitted to the Trustees of the Massachusetts Society for Promoting Agriculture,for their Premium. By Samuel H. Dana.

Chemistry made Easy ;

For the use of Farmers. By J. Tepham.

Elements of Agriculture ;

Translated from the French, and Adapted to the Use of American Farmers. By F. G. Skinner.

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1854.

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Indian Corn, three premiums. . .	2	0	0	1	10	0	1	0	0
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RULES AND REGULATIONS.

A Field of five arpents, at least, will be required to entitle a Farmer in this Class to compete for Potatoes.

One arpent for Indian Corn.

One arpent for Beans

Half an arpent for Turnips, Carrots, Mangol Wurtzel, the whole to be field culture.

No person allowed to compete unless a member of the Society.

No premium to be given unless farm is free from noxious weeds.

That parties to whom premiums are awarded, shall report to the Society, the system adopted in the production of the crops.

That such premiums shall be paid only upon interrogatories being answered, and Circular returned filled up, addressed to the Secretary-Treasurer. This rule will be enforced strictly.

Notice of competition to be given to Secretary-Treasurer on or before 10th July next.

By Order,

JAMES SMITH,
Secretary-Treasurer.

3

PRIZE SCHOOL BOOKS.

THE Subscriber obtained Diplomas at the Provincial Exhibitions held at Hamilton and Montreal in 1853, for "the Best Collection of School Books printed and bound in Canada for the use of Common and Grammar Schools." Among these books will be found

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Printed from new stereotype plates, on clear paper, and substantially bound They are page for page with other editions in use in Western Canada, and great care has been taken to render them equal in every respect to the samples exhibited at the Provincial Exhibition.

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Montreal, April 28, 1854.

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White Belgian Carrot.
Early Horn do.
Large Altringham do.
Large Red Onion.
Large Yellow do.

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NOTICE.

THE AGRICULTURAL SOCIETIES of LOWER CANADA, that have not yet Reported the ELECTION of FOUR MEMBERS to the BOARD OF AGRICULTURE, to replace the four Members who retire by lot, are requested to do so without delay, either to the Minister of Agriculture at Quebec, or to the undersigned at Montreal.

By order,
WM. EVANS, Sec. and Treas.
Board of Agriculture.

Montreal, 1st April, 1854.

FRUIT TREES.

THE Subscriber offer for sale a splendid assortment of *POMME GRISES, BOURASSAS, FAMEUSE, ST. LAWRENCE, KIBSTON, PIPPINS, HARVEST APPLE, GLORIA MUNDI, EMPEROR ALEXANDER, PEACH APPLE, RENNETS, MONTREAL BEAUTY* &c., &c. Also a few fine healthy *PLUM TREES*, all selected with the greatest care, and warranted true to their kinds; purchasers will have the privilege of chosing from two nurseries of different soils.

Apply to *GEO. M'KERRACHER, Partenais Street, Quebec Suburbs*, or at Summer Hill, (late John M'Gregor,) *Cote de Neiges Road*, or to

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3, *St. Nicholas St.*

Montreal, 1st May, 1854. 1

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Their Stock has been selected personally, by one of the Firm, from the best sources in Europe and the States, and they respectfully solicit a Share of Public favor.

Orders for Nursery Produce left at the Store promptly attended to. Seed, Nursery and Flower Pot Catalogues on application.

Fresh Bird Seed in sorts.

April 1, 1854. 2

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No. 2,
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Best Peas, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s. 5s.
Best Clover and Timothy Hay, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s. 5s.
Best Flax Seed, not less than ½ arpent, 4 prizes, 20s. 15s 10s. 5s.
Best Indian Corn, not less than ½ arpent, 3 prizes, 20s. 15s. 10s.
Best Potatoes, not less than 1 arpent, 7 prizes, 25s. 20s. 15s. 12s. 6d. 10s. 7s. 6d. 5s.
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Competitors on Farms and Growing Crops must notify the Secretary on or before Saturday, the Eight Day of July, 1854, and pay 1s 3d. on entering Growing Crops, and on both 2s 6d.

The Judges will commence on Monday, 10th of July, to view and judge the above.

By Order, JOHN DUNN.
Secretary-Treasurer.

Laprairie, 10th March, 1854.

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FOR SALE, a thorough bred HEREFORD BULL, 2 years old, and a bull calf of the same breed, fit for service next spring. For particulars, apply to R. B. McGinnis, Esq, St. Johns, or C. Skene, Esq, Moore Land Farm, Wolfe Island.

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Acts, &c., relating to the Champlain and St. Lawrence Railroad.
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H. RAMSAY.

Montreal, 1st May, 1854.

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The Press, without a dissenting voice, has expressed an unqualified approval of this work. From the ability with which it is written, as well as its remarkable cheapness, the Publisher hopes it will come into general use.

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THE undersigned offers for sale a few pairs of Purely Bred. Price 15 dollars per pair.

—ALSO:—

a Boar of same breed, 18 months old, the said Pigs are all out of an imported stock, and warranted of the best Breed in Canada for size, symmetry, early perfection, and easy fattening.

CHARLES HUGHES.

Three Rivers, 18th Dec., 1853

Montreal: Printed and Published by H. Ramsay, No. 21, St. François Xavier Street.

The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

VOL. II, No. 2, MONTREAL, JUNE, 1854. POSTAGE FREE. PRICE 2s. PER ANNUM, IN ADVANCE.

The Farmer's Journal.

We publish in our present number the Prize List of the Agricultural Association for Lower Canada, and the Rules and Regulations for the management of the Provincial Exhibition, which is to take place at Quebec in September.

The season is well chosen, agricultural operations, except fall ploughing, being then over and the navigation open.

It will be seen that the list of prizes is most extensive and universal, and compiled with the greatest care. It gives to every one who has any thing to offer worthy of it the post of honour.

From the multitude of prizes, the Judges will certainly have a most laborious office.

Those labours will be increased when the Prize List of the Industrial Exhibition is announced, and though last not least, that of Poultry and Horticulture.

We commend the Rules and Programme to the attentive consideration of our readers. On the exactness with which these are acted on much of the success of the Exhibition will depend.

ROOMS OF THE BOARD OF AGRICULTURE.

Montreal, Tuesday, May 9th, 1854.

At a Meeting of the Board held this day, the following gentlemen were present MAJOR T.E.CAMPBELL, ALFRED PINSONNEAULT, JOHN DODS, R. N. WATTS, E. J. DEBLOIS and JAMES THOMSON, ESQUIRES, and JAMES GIBB, Esq., of Quebec, President of the Agricultural Association of Lower Canada.

Major Campbell having been requested to take the Chair, explained to the Board that in consequence of the receipt of a Telegraphic message from the Minister of Agriculture, stating, that the Members, Messrs. Pinsonneault, Tache, Dumoulin and Thomson, who retired by lot, had been re-elected,—he had taken upon himself to call a meeting of the Board, in order that no more time should be lost in making arrangements for holding the Provincial Exhibition at Quebec.

A letter from Mr. Dumoulin, was read stating that it was not in his power to attend, as his professional duties required his presence at Three Rivers.

The Board proceeded to elect a President and Vice-President, when Major Campbell and Alfred Pinsonneault, Esq., were re-elected.

The Annual Report of the Board of Agriculture, with the statement of Funds for the past year, was laid on the table by the Secretary. Also the following documents:

1st. Annual Reports from the County and Sectional Agricultural Societies for the past year.—51 in number.

2nd. A letter from the Minister of Agriculture, in reply to a communication from the President of the Board, with minutes of the proceedings of the Honble. Executive Council signifying the willingness of the Government to grant pecuniary aid to have the raw produce of Canada efficiently represented in the Crystal Palace at Sydenham, near London, provided the Agricultural Societies would co-operate in collecting suitable specimens of such products.

3rd. A Circular from the President of the Board addressed to the Presidents of Agricultural Societies, and others, in relation to the foregoing subject.

4th. A letter from the Town-Clerk of the City of Quebec, in reply to a communication from the Secretary of the Board, stating that the Corporation had granted £300 towards the expenses of the Exhibition to be held at Quebec in September next.

5th. A letter from the Secretary of the County of Quebec Agricultural Society, stating that the Directors had agreed to merge their Funds for this year into the General Fund for the Provincial Exhibition at Quebec, on the conditions proposed.

6th. Several Petitions from sections of counties to be allowed to organize Agricultural Societies—the consideration of which was fixed for the next day.

7th. A list of the Life Members of the late Lower Canada Agricultural Society.

It was unanimously Resolved, that the Life Members of the late Lower Canada Agricultural Society be Life Members of the Agricultural Association for Lower Canada, and the Secretary was instructed to write to these gentlemen and apprise them of this Resolution.

The following gentlemen were appointed to act as a Local Committee for the Provincial Exhibition at Quebec:—

Hon. J. Belleau.
Dr. James Douglas.
Joseph Cauchon, M.P.P.
J. W. Dumscomb.
Joseph Legaré.
Angus Macdonald,
G. H. Simard.

E. J. Dalkin.
G. H. Parke.
Charles Robertson, St. Henri.
George Desbarats.
Matthew Davidson.
Charles Cathing.
Rev. Mr. Parent.
Rev. Mr. Horan.
James Dinning.
Capt. Rhodes.
W. H. Anderson.
J. E. Lee.
Capt. Reeves.
J. B. Carrier, St. Henri.
Dr. Joseph Morrin.
Laurent Tetu.
John Mussen.
W. A. Holwell.
J. R. Eckart.

And Messrs. Gibb and DeBlois were appointed a Committee to represent the Board of Agriculture at Quebec.

Rules and Regulations for the Exhibition were then adopted and ordered to be printed with the List of Premiums. It was also decided that the Exhibition should take place at Quebec on the 12th, 13th, 14th and 15th days of September next. The meeting adjourned at 6 o'clock to the following morning at 9 o'clock.

WEDESDAY, May 10th, 1854.

The Board assembled this morning. Members present, the same as yesterday.

The Board proceeded to consider several Petitions, for the establishment of Sectional Agricultural Societies, in Counties where one or more Societies have been already organized, and, after careful consideration, came to the following decision—

1. Naperville asking for another Agricultural Society in the County of Huntingdon,—Approved. Nos. 1 and 2 being already organized, and in operation, this Society must be No. 3.

2. Yamichiche, for another Society in the County of St. Maurice. Approved—to be Society No. 2.

3. St. Jude, for another Society in the County of Richelieu, two Societies having been already organized and in operation in that County. Approved—to be Society No. 3.

4. Melbourne giving notice, that the Society authorized by the Board last year as No. 2, in the County of Sherbrooke, proposed to go into operation this year.—Approved.

5. Clarenceville—for another Society in the County of Rouville. The published Regulations of the Board not having been complied with, the Board declined to sanction the formation of a third Society for this year.

6. Milton, for another Society in the County of Shefford—refused upon the same grounds as Clarenceville.

7. North Georgetown, County of Beauharnois, ditto ditto.

8. Lachute, County of Two Mountains, ditto ditto.

9. Shipton, County of Sherbrooke, ditto ditto.

The Board decided to increase the salary of the Secretary and Treasurer to £125 per annum, to commence the 1st of January last, 1854, and to appoint an assistant for the French language at £50 per annum. The sum of £25, was voted for the services of a Clerk during the late Exhibition at Montreal.

The Board discussed the Prize List for the Agricultural Sections, to a late hour, and then adjourned to the next morning at ten o'clock.

THURSDAY MORNING, May 11, 1854.

The Board met this day, the same Members present as yesterday, and decided upon the Premiums to be offered in "Part First" or the Agricultural Sections of the Prize List. It was then decided, that the "Second Part" of the Prize List comprising, the Horticultural, Poultry, and Industrial Sections, should be left to the arrangement of the Local Committee at Quebec, under the controul of the President of the Agricultural Association, James Gibb, Esq., and E. J. DeBlois, Esq., appointed a Committee to represent this Board at Quebec, and that the said Committee should be authorized to offer Prizes in the above Sections to the extent of three hundred pounds currency, but not to exceed that amount, and the Secretary was instructed to communicate to Mr. Gibb, the decision of the Board, in regard to the "Second Part" of the Prize List, and to request that as soon as the Local Committee had decided upon the Prizes to be offered, the list might be forwarded to the Secretary of the Board, in order to have it published with the "First Part" or the Agricultural Sections.

The "First Part of the Prize List" was then finally approved and the Board adjourned.

By order,

WM. EVANS,
Secretary & Treasurer Board of Agriculture.

Subsequent to the adjournment of the Board, a letter was received from Dr. Taché, M.P.P., Rimouski, a member of the Board, expressing his regret that he was unable to attend in consequence of the notice not reaching him in time, although written and mailed on the 29th April.

The attention of parties wishing to form Sectional Societies in those Counties in which Agricultural Societies are already in operation is particularly asked to the following resolution, which was adopted by the Board in December last, and published in the number of the *Farmer's Journal for that month?* No application will be entertained by the Board unless it be made in conformity to this Resolution.

Resolved.—That any applications for the confirmation of a new Agricultural Society in a County, must be made previously to the 1st March in each year, and in all cases proof must be adduced to the satisfaction of the Board that due notice has been given to the Society or Societies existing in the County, of the intention to make such application.

WM. EVANS,
Secretary & Treasurer, Board of Agriculture.

We are very sorry to say, that we cannot publish a letter from a Correspondent, who gives us his name, relative to some awards of prizes for wheat.

It is not the business of the *Farmer's Journal* to mix in controversy. We neither attack nor answer.

In this case, the proper appellate jurisdiction is the Agricultural Society, that is, if there is any wrong to complain of.

Our business is simply to give information, and not to mix in local disputes.

We observe in the Irish papers a confident announcement that the potatoe disease has ceased, that the crop is broad and the produce promising.

We shall be very glad to know that this is the case, but we have great doubts.

The potatoe disease appeared in Lower Canada along with ourself, in the year in which we first knew it, 1843. That was a year before it appeared in Europe, over which it spread from the Shannon to the Neva and the Rhine.

Nobody regretted the matter more than we did, on grounds purely selfish, for there is no article of food we are so fond of as a

good potatoe, and we very much admire the American custom of eating them to breakfast.

Last year we bought the very best potatoes, delivered in the city, for two shillings a bag, of eighty pounds. This year very inferior are nine shillings. At this price they are not a mere necessary of life, but a luxury, which few can afford. The farmers will be very indifferently remunerated by the high price of the limited stock they have to spare.

The potatoe disease is about the most incomprehensible thing of modern times. Speculation has been exhausted on it. All kinds of theories have been started. It is not our business to enter into them, the more as we have never seen one that was satisfactory.

The disease, whatever it be, seems to us to be very much in the nature of a cholera or endemic fever. We remember one very striking instance. Some seven years ago, we were the guest of our good friend R. H. Norval, Esq., of Beauharnois. There had been no taint of the potatoes, which were excellent. But in the morning, the girl who had been sent to gather them for breakfast, said she could scarcely find a sound potatoe. It was the day of the County Agricultural Meeting held at St. Jerome, and when the farmers came from Durham, Russelltown, Hemmingford, and the extreme parts of the county, they all stated the same thing, that that morning they had found their potatoes blighted.

We copy the following from an English paper. It has always been our opinion that the tap rooted plants ought to be grown in Lower Canada to a much larger extent than they are, the more especially that since the failure of the potatoes and the wheat we are thrown principally for productive export on store farming.

It may be a question whether the carrot or the parsnip is the most productive. They both have this most excellent quality in our exhausted soils, that they strike down their roots much lower than the exhaustion, and, as the Chemists phrase it, decompose the silicates.

So far as our own opinion goes we should prefer the parsnips to the carrot. It is not so bulky but it is a much more nutritious root, containing a larger portion of sugar. Both are in reality subsoil ploughs, for the roots descend from twelve to fifteen inches below the exhausted surface. There is no doubt that with deep ploughing they would be much more productive than they are. The principal objection we have heard against them is to pulling them, though that need not be serious here, where the cost of agricultural labour is comparatively low, and the value of animal food very high.

Both these roots have this advantage that they supply, if duly economized, a large quantity of farm-yard manure. They ought not to be sold off the farm, excepting at high prices, and to be replaced like potatoes, hay, and straw by imported manure.

In the North of England and the South of Scotland, where the field culture of carrots and beets is extensive, they are taken out of the ground the same way as potatoes. That is they are planted in ridges not broad cast, and the plough is past along the ridge so as to turn them up, and there is nothing for the Farmer to do but to throw them into the waggon. In this process there is a little necessary waste, but there is a great saving in labour. And if pigs are turned into the field afterwards, we do not know that any thing is lost.

There is one singular difference between the parsnip and the carrot. The latter though naturally a biennial, invariably perishes here in the winter. We never saw one survive. But the parsnip, though of the same umbiliferous family, survives the winter, and what is more, sows itself in the spring. We are perhaps intruding on the profession of our medical readers, but we often had a very strong suspicion that in the second year its roots become poisonous, like those of its near relative, the *cicente veiose*. So strong is our opinion to that effect, having heard of so many deaths, that we can account for it no other way, that we have never ventured to taste it.

The mode of storing recommended in this paper, is one totally unsuitable for this country. The frosts here are so intense that they would utterly destroy any roots stored in the manner described. The severest frost ever known in England could not give the faintest idea of ours. The frost in Britain rarely penetrates in its soil as many inches as it does feet in ours. There is no protection here for roots except in well protected root-houses or cellars. But still we are afraid the necessity for ventilation is very much neglected. It should never be forgotten that roots are living things, and throw off elements highly poisonous to themselves and to those who breathe them.

ON THE CULTURE OF THE FIELD CARROT.

BY A PRACTICAL FARMER.

There are numerous varieties and sub-varieties in the carrot tribe. Like all other plants designed for field culture, it has passed through many gradations, and under the fostering care of scientific growers it has been wonderfully improved in its nature and the abundance of its produce. Such is the productiveness of the carrot crop under the best culture, that few others can equal it. The potato crop cannot yield so large a return per acre, nor will the food of the potato bear a comparison in its fattening qualities with the carrot, besides its freedom from disease. It will also bear comparison with either the mangold wurzel or turnip crop; it is a far more valuable crop than either of them, and will yield pretty near as much weight of food per acre. The carrot crop has been known to produce 40 tons per acre, and frequently 30 tons are obtained. The average yield, however, on good soils and fair crops is from 12 to 25 tons per acre.

Variety.—The varieties generally grown in field-culture are the Long Orange field carrot, the Improved Altringham carrot, and the White Belgian carrot. I have grown these varieties, but am quite at a loss as to their respective merits: I believe them to be of equal value. I certainly had most profit from the White Belgian, but it was more owing to the soil and season than to the variety; moreover, the red varieties appear to retain most favor with the public, and, of course, meet with a more ready sale at fuller prices: for farm service this is immaterial.

Soil.—The soils best suited to the profitable culture of carrots are deep rich loams of moderate consistency, and rich reclaimed bogs: good sandy loams are well adapted for their culture: light sands and gravels, if well manured and pulverized to a considerable depth, will produce good crops; indeed, any soil of sufficient richness, and that can be cultivated to the depth of 8 to 12 inches, will bring admirable crops.

Preparation of Soil.—To insure a crop of carrots the land must be thoroughly worked and well pulverized to a considerable depth (not less than ten inches will suffice by any means); it must be cleaned as much as possible from all root weeds, and the annuals must, if practicable, be made to vegetate, and then be destroyed before the carrot seed is sown, otherwise much difficulty ensues. The manuring should consist of old well-fermented dung; and if applied early in the spring, and then ploughed in and well incorporated with the soil, all the better: it will tend much to prevent the growth of "fangs," instead of the long roots. Should this be inconvenient, the common ordinary manuring may take place immediately before sowing, to be well and deeply ploughed in and rolled down with a rather light field rol-

ler. It is not desirable to plant carrots on ridges, but on the flat they are less fangy, and, of course, more valuable.

Preparation of Seed.—This is of more importance than is generally given to it. The seed should be mixed with earth, coal ashes, sand, or like material. Bone-dust, rape-cake, or some of the new manufactured manures might with advantage be substituted, the object being to separate the seeds for drilling, while at the same time by a slight moistening they may be made to vegetate. This mixture, with a few grains of barley or white mustard thrown in, to mark the rows by its early growth, may be made, and regulated according to the quantity which the drill is known best to deposit: it is of no consequence as to the quantity of the mixture, providing the whole is evenly mixed: it is merely drilling in so much manure with the seed to promote its more rapid growth. From three to five pounds of seed are requisite for an acre.

Drilling.—This may be very satisfactorily done by any good manure-drill capable of drilling-in mangold wurzel seeds, or turnips; or, if only a small mixture, say two or three bushels, is made, the common corn drill will do very well. The distance between the rows should be about twelve to fourteen inches, and the depth about one inch. If the land is dry and season unpropitious, it is best to roll or slightly harrow in; but if rain is likely to fall, it is best to leave the drills open. The months of April and May are best for sowing.

After-culture.—This mainly consists of weeding, hoeing, and singling. These should all be done by hand and as often as required. The first hoeing should be between the rows, and to take place as soon as the rows are discoverable; the next should be when the plants are sufficiently high to allow the hoe to be struck across the rows, so as to leave the healthy plants about six inches apart along the rows, sooner a little wider than less, as it is proved that a reasonable width apart gives the greater yield and finer roots. The weeding and singling should soon follow, when probably, if the land has been nicely managed, another hoeing in the month of June or early in July may complete the culture. Wide drilling and horse-hoeing are not applicable to the carrot crop. The young plant is of too tender growth, and requires careful nursing and continuous attention.

Storing.—This is an expensive process, and is the great objection to carrot cultivation. It begins in October, and it can only be properly done by digging up the roots either with a three-pronged fork or other tool: they must then be gathered into carts, and led to the grave, and piled up as described for mangold wurzel or potatoes. Carrots are more subject to take heat than most other roots, and will require greater care in storing: the heaps or graves must not be too large, or raised too high, nor covered down too thickly. The yshould have ventilating holes in the grave as long as the season will allow. The tops should be carefully cut off above the crown before digging, and taken to stock for immediate consumption. Burrows, in his communications to the Board of Agriculture, says—"The carrots keep best in the ground, nor can the severest frosts do them any material injury." He prefers to let them remain in the ground till March, when they are taken up in dry weather, and stored as above.

Application.—The carrot abounds in nutritive matter, and does not require any process beyond cleaning to prepare it for food for cattle, horses, &c.; no steaming, no boiling. It is the most valuable of all roots for horses, and is proved to fatten cattle faster, and even cheaper, then turnips. The proper allowance of carrots for a horse is from 50 to 70 lbs. per day. All stock thrive well upon them. Cattle, sheep, and pigs fatten faster upon them than any other roots. If grown for sale, it is very valuable, making from £3 10s to £4 per ton in the London market.

EASTERN TOWNSHIPS.

We learn from our contemporary *La Minerve*, with much satisfaction, that the Government, within the last few days, on the requisition of T. Boutillier, Esq., the Inspector of the Agencies of the Lands and Woods of the Crown, has issued a warrant for the sum of £10,000, to be employed in the opening of roads in the Eastern Townships of Lower Canada.

The Hon. Mr. Morin is determined to neglect no means of favouring the colonization of the Townships. He caused last year several explorations to be made; and we are informed that this year that work will be continued. Thanks to the vigilance of the Hon. Mr. Morin, and the active and intelligent co-operation which he has recently obtained, important information respecting the quality of the land in various parts of the Townships, has been acquired. In the course of June these labours will be renewed, and in full activity.

This will be a favourable moment for Canadians to visit the lands contiguous to the different lines of road which it is proposed to open. It is to be hoped that the Rev. *Cures* will induce any of their parishioners disposed to emigrate to other lands, to turn their steps in the direction of these new lands. If due attention be paid to the rapid rise of fixed property in the Province, in consequence of the immense public works which are now in progress, it will be seen that the lands which colonists may now acquire from the Government for one shilling and sixpence per acre, will be worth, in a few years, as many dollars as they are now worth *sous*. It is for those who are able to comprehend and judge of the future, to counsel others less clear-sighted. We may fairly count on the services of the clergy on this subject as in other cases. It will be remembered that in the district of Quebec, it is the clergy who have placed themselves at the head of the colonization; and it is they who have offered to direct gratuitously the works which the Government desires to have commenced in the Townships. Both in our own district and in the district of Three Rivers, members of the clergy have set on foot the movement in favor of emigration into the Townships. The organization of the Department of the Lands and woods of the Crown is now on an excellent footing; and the most exacting cannot fail to be satisfied with the works now about to be undertaken to open the Townships to cultivation.—*Montreal Pilot.*

THE TOMATO.

To many persons there is something unpleasant, not to say disgusting, in the flavor of this excellent fruit. It has, however, long been used for culinary purposes in various countries of Europe, and has of late years, been extensively cultivated and become a general favorite in this country. Dr. Bennett, a professor of some celebrity, considers it an invaluable article of diet, and ascribes to it very important medical properties. He declares:

1. That the tomato is one of the most powerful deobstruents of the Materia Medica, and that in all those affections of the liver and other organs where calomel is indicated, it is probably the most effective and least harmful remedial agent known in the profession.

2. That a chemical extract will be obtained from it, which will altogether supercede the use of calomel in the cure of disease.

3. That he has successfully treated serious diarrhœa with this article.

4. That when used as an article of diet, it is almost a sovereign remedy for dyspepsia or indigestion.

5. That persons removing from the East or North to the South or West, should by all means make use of it as an aliment, as it would in that event, save them from the danger attendant upon those violent bilious attacks to which almost all unaclimated persons are liable

6. That citizens in ordinary life should make use of it either raw, cooked or in the form of a catsup, with their daily food, as it is the most faithful article in the Materia Alimentaria.

Professor Rafinesque, of France, says:—"It is everywhere deemed a very healthful vegetable, and an invaluable article of food."

Dunglison says: "It may be looked upon as one of the most wholesome and valuable esculents that belong to the vegetable kingdom."

A writer in the Farmer's Register says: "It has been tried by several persons with decided success. They were afflicted

with chronic cough, the primary cause of which in one case was supposed to be diseased liver, in another diseased lungs. It mitigates, and sometimes effectually checks a fit of coughing."

The method most commonly adopted in preparing this fruit for daily use, is to cut them in slices and serve them with salt, pepper and vinegar, as you do cucumbers.

To stew them remove them ripe from the vines, slice up and put them in a pot over the stove or fire without water. Stew them slowly, and when done put in a small piece of good butter and eat them as you do apple sauce.—Some add a little flour bread, finely crumbed, or a couple of crackers pulverized.

The tomato is a fruit very easily raised. If the seed be sown in May, in good, rich soil of warm nature, with a sufficiency of old, well rotted manure, there will rarely be any danger of failure. When the vines begin to leave, they should be provided with a trellis, or tied to stakes fixed in the soil, to keep the fruit from being injured by coming in contact with the dirt.

REQUISITE POINTS IN FOWLS FOR BREEDING.

Much judgment is required in propagating all kinds of stock with a view to improvement; still, accident sometimes favors our designs and a hap hazard course may occasionally result more favorably than well conceived judgment, though generally proving a hodge-podge affair.

There are certain points in all animals that must be fully developed in their conformation to constitute them perfect in form, strong in constitution and well adapted for the object to which the particular species are appropriated;—hence, the most perfect form of each respective kind to breed from, should be selected, which, too should be sound and healthy, and to insure a certain description of offspring it is necessary to breed from those of a positive character—all of which is quite as applicable to poultry as any of the domestic animals.

The breeder should first endeavor to inform himself fully, that he may select his stock with judgment as to their real merits

In calling attention to the requirements of stock fowls (those to breed from) I will state the points I consider of so much importance as to be strictly adhered to in all my selections to breed from, and absolutely necessary to obtain first class birds of every breed.

The Asiatic varieties are inclined to too much length of legs, increased by injudicious breeding; great heighth has been too much the object with many breeders and I am surprised to see at this day when proper selections can be made, so much importance attached to that point. The birds, best proportioned and most perfect in form should always be preferred to those of great size when inferior in the most essential points. I have now in my yards those varieties whose rear feathers trail marks when walking in the snow an inch deep. The cocks with no longer legs than a due proportion to size of body.

If imperfection must unavoidably exist in either parent, my experience has proved it should be in the hens. They have the greater influence in imparting the size, to the progeny but stamp them with the characteristics of the male.

It is requisite a breeding cock should be long from his eyes to point of bill, and that strong and heavy which is evident at an early age—the eye large and full. A short, round headed cock is a dull inanimate bird, like the owl, his prototype in that feature. His neck should be thick and stiff—brea-t deep, full and projecting. Thighs should be somewhat long but heavily muscled, a point which should not be overlooked—the legs of good size, but very important they should be short and standing perpendicular, and by all means wide apart. The particular form and position of the legs I consider among the most important points to be observed; without that proper formation a bird is generally deficient in others. I have never seen one with good legs but what his general form corresponded. When of proper dimensions the sustain they body erect, give symmetry, with loftiness and activity. A long shanked fowl is generally knock-knee!—awkward gaited and of frail constitution—a clumsy treader—horribly mangling the hens backs. He should be broad and flat across butts of wings, back short, and somewhat depressed, by the tail being high set up. A long hump back is frequently found in connection with a long shanked "critter," possessing a lank chest and badly feathered, destitute of all worth except to make Homœepathic broth, having scarcely vitality sufficient to keep him alive and the sooner that fails him, the better for his owner, unless no better could be procured, or his Harem is composed of the most perfectly formed hens. His crow should be long and shrill, which gives evidence of full developed lungs, a sure test of strong vitality. Without a full capacious chest, neither man, beast or bird possesses a strong constitution, nor will they take on fat readily. Color is a mere matter of fancy, though the dark hues are considered the most hardy; however, the plumage should be decided and brilliant. The hens should possess the same peculiarities of conformation as the cocks, and if breeders will attend to the above requisites and to making crosses yearly, they may depend on having choice birds, possessing length, breadth and depth of carcass, good constitution, full meated, firm, stately step, will fatten readily and of the most productive qualities.—*Farmer's Companion.*

THE SECRET OF BREEDING FINE STOCK.

Form a correct idea in your mind of the sort of animal you wish for, studying it in detail. Then procure a young, healthy, but mature female approaching as nearly to this ideal picture as possible. Carefully examine in what respects she is deficient, and find a male of the *same* breed, *proportionally* smaller than herself, with her good qualities, but most especially *excelling where the female is faulty.* This is of the utmost importance. Let the male be somewhat the oldest, but not very much so. While the female is pregnant, feed her well with food rich in albumen, gluten, and the phosphates, but prevent her from becoming fat. When the young is born, increase the mother's food, and add more carbonaceous (starchy or oily) matter to it. When the young can eat, and particularly during the first winter, give bundance of green nurishing food, and ground oats or buckwheat, in perference to corn; and unless some accident happens you are morally certain of having a very superior animal. The only chance of failure is where the parents are *mongrels* or grades; or where the female has before (especially for her first offspring,) bred to an inferior male, or one of markedly different blood from herself. In mixed, or grade blood in the female, you never can be certain that she may not breed back to some very worthless ancestor, generations before; but even in such a case your chances are in favor of success. If you go to much expense to procure a valuable male, never depend on a female with whose previous history you are not acquainted. Much better use one that has never given birth before; even if she is not quite as perfect as the other. This, *practically*, is a very important rule. To these directions the whole *secret* of successful breeding among established races seems to depend. If you are ambitious to form a new breed, like Collins or Bakewell, you must study the matter out for yourself; for these gentlemen never gave any account of their management; and they probably owed as much to "luck" as to intention. In crossing two very distinct breeds, as the Merino and Leicester sheep, or the cart-horse and Race-horse, much more experience, and knowledge are requisite, *if* any good *can* come of such direct crosses.—*Farmer's Companion.*

FEEDING AND REARING OF CATTLE.

BY C. W JOHNSON.

Let the keeper of live stock remember that the food of cattle requires a certain bulk—the stomach requires a certain mechanical stimulus, which the bulk of the food naturally imparts to it. *Occasional over feeding* produces derangement of the digestive organs, hoven, and diarrhœa; *habitual* overfeeding produces an enlarged liver, puerpelal fever, black-quarter, and other diseases. *Deficient food*: animals, even before birth, are affected by insufficient food; insufficient food during pregnancy, besides rendering the young at the time of birth small and weakly, has also the injurious effect of curtailing the provision necessary for its future

sustenance; the milk secreted is small in quantity, or if it be considerable in bulk is poor in quality, nor will the most liberal aliment given after the birth of the young one always remedy the evil. Surely, then, it is false economy to put pregnant cows on over restricted diet. Remember, too, that there is no period in the life of an animal in which the effects of insufficient food are more prejudicial than in early years; this is far too often the case with regard to calves. The calf, after a week or ten days, should be liberally supplied with milk, and for six or eight weeks should receive only new milk, from eight to ten pints per day, divided into at least three meals; then skimmed milk may be gradually substituted for a part of the new milk—milk should, daring three or four months, form its principal food; then the calf may be gradually accustomed to other sorts of diet, such as oat or scorn ground. Calves should be housed at night before the weather becomes cold, after their first summer's grass. Young cattle are generally placed in sheds or courts, but their feeding often receives too little attention; the result is unthrifty coats, lank limbs, and pot bellies—these, again, when they are suddenly put upon a more liberal diet, become liable to various casualties, such as purgative, congestive fever, abortion, epilepsy, and various cerebral affections. When the *bulk* of the food is insufficient, and the quality poor, the digestion is impaired; thus straw is apt when used exclusively for some time, to cause distention, constipation, and fardel-bound, and afterwards dysentery. When cattle are put up to fatten about their second or third year, the evil effects of early bad feeding are apparent by the length of time required for fattening. In milch cows, more than in any other kind of cattle, an unusually large supply of food is requisite, not only to support the condition of the body, but also an overplus from which the milk may be formed. *In sheep*, insufficient food, produces thinness and tightness of the fleece; coarseness and brittleness of fibre; general debility, emaciation; excessive liability to the attacks of the fly; purgative dropsical swelling; hydadids in the brain; typhoid fevers; and scab. *Change of food*; on the advantages of this we need not dilate, or its preparation, or the regularity which should be observed in feeding. *Exposure to wet:* its most uniform effects are a tendency to diarrhœa and muscular relaxation: there is a marked tendency to dropsy and bloating observed among men and animals living in moist localities. Wet weather is apt to induce rheumatic enlargements of the joints, foul in the feet, and quarter-ill. In sheep, the ill effects of exposure to rainy weather are still more decided than in neat cattle; in them it produces diarrhœa, affections of the feet, enlargements of the joints, rot, and such like maladies. *Cold*: Exposure to a moderate amount of cold, and for a limited time, increases the vital energies and invigorates the organic functions. In excess, it has an exactly opposite effect. It then exercises a sedative or depressing influence, inducing slowness of the circulation, feebleness of the respiratory organs, diminished power of generating heat, stupidity, and death. These are the symptoms which manifest themselves in severe winters, and are seen in all their stages by shepherds, whose pasture grounds are unsheltered, and exposed to piercing cold and scourging winds. *Shelter:* want of shelter exposes animals to sudden and exce-sive changes of temperature, and to the heat-abstracting influence of cold currents. It necessitates the consumption of a very large allowance of food; and when, as is usually the case with animals badly sheltered, exposure to cold is conjoined with exposure to rain and all kinds of weather, the necessity for an increased supply of food will be still greater. In such circumstances, an unusually large quantity of material is expended in the maintenance of the animal heat: and if this extra expenditure be not compensated for by an increased quantity of food, the animal necessarily loses weight. Amongst the other diseases produced by exposure to cold, are rheumatism, pulmonary consumption, scrofulous tumors, increased loss of ewes and lambs in the lambing season.—*Farmer's Magazine.*

CABBAGES.

There is no vegetable from which so bountiful a return may be expected as the cabbage. I have so often told the story of 18,000 heads raised by Mr. Mason of Beverly, on 2½ acres and seen such an expression of incredulity awakened thereby, that I hesitated about mentioning it again, until I heard Mr. Mapes state that he had raised on his own farm the last season, 73,000 head of cabbages on 6 acres, being more than 12,000 to the acre. The only difference between Mason's and Mapes' cabbages, as the story was told was, one sold them at 6¼ cents and the other for 3½ cents ahead. I admit I was astonished by the number raised by Mr. Mapes. I remember to have heard the late E. H. Derby say, there was no crop that could be so advantageously grown for the feeding of stock as cabbage. This he said after many years experience on his extensive farm at Salem, Massachusetts. The best approved method, as far as I know, of raising cabbages, is that practised by Mr. Mason. He turns over the sward to the depth of 8 or 9 inches; applies a liberal coating of well fined compost, made in his barn-yard, from material collected on the beach, intermingled with the other materials there gathered; harrows the land until the manure is completely imbedded in the soil; furrows at such a distance as will admit a cultivator to pass between the rows; plants the seed in hills almost one foot apart; when the plants are fairly started, thins them out, leaving only the most vigorous one in the hill; and subsequently keeps the ground well stirred and free of weeds; always resists the first beginnings of the worms. In this way he secures a crop with heads as uniform as so many peas. Such culture I have repeatedly witnessed and know there is no fiction about it. The fertilizing properties disengaged by the decomposition of the verdure, overlaid by the inverted furrows, keeps the plants in healthy condition through the droughts of August and September, and the rich coating of manure applied gives vigor and health to the whole plant. I have never seen a more handsome growth of vegetables than Mason's fields of cabbage.—*(John W. Proctor, in the Trans. of the Agricul. Societies of Mass. 1853.)*

FLAX AND BARLEY.

The seed of the Flax plant, or *Linseed*, generally sells for a dollar a bushel and upwards; and were it not for the comparatively small yield—8 to 15 bushels per acre—it would be worth our growing without any regard to the fibre. It is out of the question our attempting to make a profit from the fibre unless we are located near a flax mill; and is of essential usefulness to the Farmer if he is fattening either hogs or cattle. Two pounds a day, boiled and mixed with other food, have a most marked effect upon a fattening animals. Barley, too, is an excellent feed for both hogs, horses, and cattle; and in Michigan, when, the oat succeeds but moderately, we wonder that barley is not grown extensively in its place. Properly put in, on good corn land, it will yield from 30 to 45 bushels per acre, and perhaps more. Now, if we can grow both these crops together, without injuring, either, we cannot fail to make a handsome profit. This has been done in New York; and why should not we in the West, with far better land, do it also? At least, it is worth our trying the experiment, and finding out what we *can* do. Who will make the attempt this spring and let us know the results?

Col. Stubbins, of Earlville, N. Y., prepared an acre of ground for barley. After sowing 2 bushels, he then sowed a bushel of flax seed on the top of the other; dragged well, and rolled. He harvested both together with the cradle; thrashed with a machine; cleaned with different sized screens, in the fanning mill, so as to separate the two kinds of seed; and the crop stood thus:—

30 bushels of Barley at 50 cents,	$15.00
15 " " Flax seed $1,	15.00
	$30,00
Straw, Barley, $4.00.	
Flax, 2.00.	6.00

Thus, the Linseed was a clear nett profit. The Barley crop appeared to be as good as if no flax had been sown, for Col. S. had sowed barley on a few acres adjoining of equally good land, and this produced only 30 bushels per acre. Our rich western black loams, of a sandy character, would, we believe, pay well with such a crop. Of course,

it ought not to be repeated on the same field in succession, for no land can continue to bear the same crop, year after year, without injury. The flax straw will serve well for bedding, and be a rich addition to the dung heap. The refuse of the seed-pods is nearly as good for feeding as the seed itself. In Ireland, the seed, when used for this purpose, is estimated to be worth $20 per acre. For the mode of growning Barley, see the *Companion, vol. 1, p. 69.* In the *Transactions of the N. Y. State Agricutural Society*, for 1848, we find a premium crop of this grain of 130 bushels per acre, grown at Martinsburgh, Lewis co., as follows:

1 day ploughing at . . .	$1.50
1½ days harrowing and rolling, .	2.25
2 " harvesting, . . .	2.00
1 day haulling, . . .	2.00
½ day haling manure, . .	0.75
6½ bushels seed at 62½ cents and sowing, ...	3.69
6 days thrashing and cleaning (by hand ?), ...	4.50
Interest on land at $50, . .	7.54
	$24.23
Net profit per acre, . . .	$44.77

—*Farmer's Companion.*

FAT CATTLE.

We have frequently shown the intimate connection between the production of fat animals and the growth of corn. It seems as far as our present knowledge is available, that this connexion is so intimate that either the relation of stock and corn must be kept up, or the difference will have to be made out of the staminal energy of the soil itself In other words, when a considerable quantity of stock is not fattened on a farm, the soil will have to suffer in fertility, unless the loss is made up by the purchase of artificial manure. Nor are we sure that for any great or even considerable length of time, the purchase of any one artificial manure will entirely supply the place of keeping stock. We know an instance where this was attempted. Some land near a town was annually denuded of its straw, when artificial and purchased manures were very liberally applied; bnt the result showed a falling off in fertility, which was soon restored by the renewal of applications of farm yard manure.

We again are cognizant of an instance where the most important evidence of the connexion between stock and corn—between cattle fed and crops produced—is afforded; and this is the estate of Mr. John Hutton, of Sowber Hill, near Northallerton, who has been taking into hand for some years poor, wild, worn-out farms, as his tenants dropped, until he has about fifteen hundred acres or more—a large quantity for the district—and has followed out the system of steam-boiling linseed and meal, combining this with chaff, and so feeding a large number of cattle. He has thus renovated the poor, worn-out soils and reduced the whole to a state of garden cultivation, combined with the successful feeding of prime short-horn steers.

His habit is to make no secret of his proceedings; but, year after year, invites large parties of his neighbourhood, and of the most s irited farmers from different localities, who inspect the whole of his proceedings. and are invited to offer remarks on his plans, and to whom he gives every information. A party of some 29 agriculturists of this class lately inspected his farming operations, and the clean, healthy, and happy condition of fifty well-fed short-horn steers ready for market, the sleek and almost fat condition of the straw-fold or store cattle in is yards—many worse are sold for fat—the heal hy condition of his draught horses, are videnees of the value of the linseed compound on which they are fed—the fat cattle to the utmost limit, and the store stock and hors s once a day. To suit the expenses of the times the following is the formula of his feed, and, as will be seen, the cost of feeding is at this dear season not more than six shillings per week. We think the fact is well worth communicating; and as he has no objection to his plans being widely known, he will not object, we are sure, to us giving it to our readers.

Cost of keeping a Fat Beast for one week.

April 18, 1854.	s.	d.
26 lbs. of meal at 1d. per lb.....	2	2
13 lbs. of linseed at 1½d. per lb.....	1	7½
Turnips (from 70 lbs to 80 lbs per day)	1	6
Coals.....	0	1½
Labour on each beast.....	0	7
	6	0

The food given to the draught horses is 1 lb. of linseed and 3 lbs of meal, at noon, at a cost of 4½d. per day.

The value perhaps of this in promoting the digestion of nourishing food at a time of day when it is important to get the work as rapidly done as possible is incalculable, and the healthy coats of the horses showed that it was suited to their animal economy.

We cannot help thinking that this mode of economizing root crops, and so getting the largest amount of fed animals from the smallest quantity of green crops, using up all the straw most carefully and most favourably for its conversion into manure, is a vast desideratum to the cold-clay farmer. How, he asks, can he get good manure with his small quantity of roots, or how keep stock in any quantity so as to have his manure made by those who are fattening? This plan seems to be a solution, and ever since its introduction by Mr. Marshall, has Mr. Hutton followed it out, feeding or keeping, we believe, something like a hundred beasts per annum. The small quantity of roots per day—taking the minimum of 70 lbs.—would in twenty weeks amount to some four-and-a-half tons only, thus finding all the roots necessary for feeding four cattle on one acre of a twenty-ton-per-acre crop.

We have taken the extreme as to time, for few farmers would feed them perhaps so long, and we cannot help also observing that when a stone of beef, or nearly so, at 7s 9d. per stone of 14 lbs., can be laid on per week, there is a very ample profit. There is a profit, however, if a considerably less weight than this is added, which is perhaps more frequently the case in cattle feeding; but even if the whole of the expense of feeding were not reimbursed in the fattening of the animals, it doubtless would be in the addition of valuable manure to the land.

Another hint at cattle feeding may be had from Mr. Hutton's plans. While you invariably find all the animals quietly laid down until their known times of feeding, you find them all most scrupulously clean. Not a single spot of dirt can be found on the whole, from one end to the other; and this is partly occasioned by the uniform consistency of their dung with this mode of feeding, which occurs perhaps in no other; but also by the great care in removing every particle, and keeping them all well and uniformly littered. Their comfort and quietness also contribute in no small degree to their cleanliness; and though they are not curried as a rule, the skin is kept in healthy action by the friction of a wisp of straw occasionally applied. Mr. H., has adopted this plan, if we rightly remember, for some six or eight years.—*Mark Lane Express.*

IMMENSE LOSSES ON THE IMPORTATION OF STOCK.

The year 1853 has proved very unfortunate to a number individuals on this side of the Atlantic, who have been led by a laudable and enterprising spirit to import the improved breeds of farm stock from Great Britain. A number of fine animals have perished, from one cause or other during the voyage, and our own Province has largely shared these disasters.

Mr. W. B. Crew, of this city, has, we regret to say, been a great sufferer. Mr. Crew reached home a short time since, with less than one half of the animals which he purchased at great trouble and cost in England! He lost on the passage a valuable Stallion, a splendid young Durham Bull and Heifer, thirteen out of twenty-one improved Leicester sheep, several of them among the finest that the flockmasters of England could supply, and out of 120 head of carefully selected Poultry, consisting of no less than thirteen of the most approved sorts, only 36 head reached their destination! Several dogs of different breeds, we understand, likewise shared the same fate. The Pigs alone reached Toronto unimpaired in condition and number. Mr. Crew has one very superior Agricultural Stallion left, (which cannot but prove highly advantageous to the country, however otherwise this very disas-

trous result may be to himself); a fine Durham Heifer, and a few excellent sheep and poultry. The chief causes of these disasters may be traced to the constant rolling of the ship, and the very boisterous state of the weather. We regret to learn that the stock were not insured.

A short time previously, Messrs. Stone & Iles, of Guelph, lost at sea a fine Durham Bull and seven cows, in calf, Heifers of the same breed, carefully selected from the herd of Mr. Langton, M.P. for the County of Oxford, and brother-in-law to the late Earl Ducie; also fifteen of the finest Cotswold Sheep, from those celebrated breeders, Mr. Banner, Gloucestershire, and the Messrs. Gillet, of Oxfordshire. During a frightful gale, the sea swept the entire deck, carrying the cattle at one sweep into the ocean. Messrs. Stones and Iles we are glad to learn were moderately insured.

A few months ago, the Messrs. Wade of Coburg, who are so favourably known for their enterprise in this direction, lost at sea some very superior Durham cattle, as have also several others, both in the British Provinces and the United States.

We likewise learn from an esteemed correspondent in New Brunswick, that Mr. Cumming, Veterinary Surgeon, was deputed to go to England to procure a number of the best St llions of different breeds, to be distributed over the Province. Mr. Cumming selected eight animals, which are described as possessing first rate qualities; three of them however perished in a severe hurricane when the vessel had been only eight days out. The average cost of the animals was about £300 each.

These melancholy facts sufficiently indicate the necessity for some great improvements being effected in the modes of transporting live stock across the rough Atlantic. The system as commonly pursued by individuals is fraught with infinite anxiety and risk, and as the above facts indisputably show, is but too frequently attended by heavy pecuniary loss. We trust that something practically beneficial will arise out of a late application of the Board of Agriculture to the Government, urging the great importance of making arrangements with the proprietors of the line of Canadian Steamers, for the carrying of improved Stock at moderate rates, and with better and safer accommodation than are usually obtainable.

In conclusion we have much pleasure in calling the attention of our readers to an article on the importation of cattle, in another column of this journal. The subject deserves to be fully investigated, and must not be allowed to drop without some practical results.—*Upper Canada Paper.*

HINTS ON BREEDING GRAZING CATTLE.

We commend the following suggestions, which we take from the New York *Spirit of the Times*:

Some breeds of cattle are disposed to carry fat internally, and others externally, while in others it is deposited between the layers of muscles, forming what is called "marbled meat." In the races of cattle disposed to carry fat externally, are the once-famed "Dishley breed," with large fatty rumps, and the African ox, with his immense humps of fat on his shoulders. These animals have little or no internal fat. The Herefords are distinguished for this peculiarity of carrying much external fat, making these exceeding good "handlers." The "improved Durham" are highly prized for their "marbled beef."

The animals which reach the greatest weight of muscle and fat, with the least consumption of food, are the Herefords and Durhams; the former breed will fatten, at the age of two and a half years, to one thousand pounds; while nearly all other breeds require at least one year longer to attain this weight—an important fact that should not be lost sight of by breeders of grazing cattle.

In calling attention to the "principles" of breeding, we cannot perhaps do better than examine the "rules" followed by the most successful English breeders.

The following are the means by which Bakewell established the permanent character of his cattle:

He first selected the best animals of their respective kinds, and coupling these, endeavored to develope in the highest degree those characters which he deemed good, looking mainly to those peculiarities of conformation which indicate a disposition to fatten. He arrived at producing a large cylindrical body, and a smallness of the neck, head, and extremities, or what is called fineness of bone. A saying of his, often quoted, is, that "all was useless that that was not beef." Hence, the principles which guided him, were the most meat from the least food, the least offal, and the size of the best joints: smallness of the bones, aptness to fatten, and arrive at early maturity, he kept constantly in view. He always bred from the best animals, making the very best selections of both male and female. He thought the production of a large quantity of milk was inconsistent with the property of yielding much meat.

Charles and Robert Colling made many improvements in the Durhams. They, like Bakewell, seem to have regarded size in their animals as a quality secondary and subordinate to those which they wished to produce, and to have directed almost exclusive attention to beauty and utility of form, and development of the properties of early fattening. Having, by skillful selections, become possessed of animals with the properties sought for, they continued to breed in and in.

C. Colling's first great improvement was made on a young bull, which he obtained by a kind of chance of a poor man, from a cow fed by the roadside. His sagacity led him to see the value of the young animal. He likewise afterwards obtained a cow, which, however, on being removed to superior pasture, became so fat, that she did not again breed. The calf inherited the same property, and as he grew up, became so fat as to be useless as a bull. This bull was termed Hubback: he was the sire of the celebrated Bollingbroke.

Colling, by continually breeding from his own stock, seems to have pushed refinement in breeding to its limits, having produced that delicacy and impairment of constitution which never fails to accompany a continued intermixture of blood in a limited number of animals. He now attempted various crosses with cows of various other breeds; but his most fortunate cross was with a most beautiful polled Galloway cow, of a red color, and his "short-horn" Bolingbroke. The produce, being a male calf, was in due time conjoined with Johana, a fine short-horn cow; the produce being another male calf, was put to "Lady," a true-bred short-horn. This cow, with her descendants, at his sale in 1810, forty-eight lots, brought £7,115, or about $716 each.

Michael Dobson, one of the earliest improvers of Durhams, visited Holland, for the purpose of selecting bulls of the Dutch breed. His stock were of great size, coarse, great consumers of food, did not fatten very early, produced much internal fat, and were well adapted to the uses of the dairy. This district, Holderness, was distinguished beyond any other part of England for its dairy stock, and many cows of this variety are yet to be found more or less mixed with the Durham blood. The effect has been to improve their form, but to impair their milking properties; nevertheless, the modern Holderness still stand in the first rank of dairy cows, and the great London dairies are chiefly supplied by them.

The following are the principal characters found in animals possessing the faculty of fattening readily:

The head small, face long from the eyes to the point of the nose, front broad, muzzle fine, nostrils capacious, neck short, light, nearly straight, and small from the back of the head to the middle; full, clear, and prominent eye; the back straight from the top of the shoulders to the tail, which should fall perpendicularly from the line of the back; the chest wide and deep; the ribs deep and circular—this depth of "barrel" is most advantageous in proportion as it is found behind the elbow; hips wide apart; loins and back well filled up with muscle; quarters full and large; flank deep and well filled out; bones small and flat, but not so fine as to indicate too great delicacy of constitution; the hide, a very important part rather thin, expansive, and mellow, well covered with fine and soft hair.

These are the principal characters which indicate the property of secreting the fatty tissue, and they may be said to be universal,

extending to all domesticated animals, the horse, the sheep, the hog, the dog, and the rabbit.

In breeding, always observe the following rules:

1. Breeding from sound and healthy animals.

2. Breed from the most pefect in form, and take a special care that a tendency to the same defect does not exist in both parents.

3. Breed animals of a distinct and positive character, to insure a certain description of offspring.

4. Select the very best males; for the produce inherit much more of the qualities of the male, whether good or bad, than they do from the female.

5. In crossing, the true system is to take one cross, and then return and adhere to the original breed.

It is a common practice, in the rearing of blood-stock intended for exhibition, to place the young animals, shortly after they are weaned, in a narrow stall, or box and to feed them with milk and meal—sometimes sugar and molasses are added—and afterwards with grass, hay, carrots, &c.; the animals look fat and plump, and their owner is satisfied. Now, the effect of this is without doubt to lessen the size of the lungs and other organs concerned in nutrition, and produce a breed that will carry an immense mass of fat, come quickly to maturity, and also, when they breed, produce the same qualities in their offspring.

By breeding from animals having a great tendency to fatten, or from those kept constantly fat, function must react on organization, and at last these qualities become not only increased, but fixed, in the race. By functions reacting on organization, is meant, when an organ—the lungs for instance—becomes diseased in consequence of not performing their natural functions, the diminished structure is likely to be reproduced in the progeny of an animal so affected; hence the reaction. The great secret of rearing animals for profit, is to obtain the fat kind, and supply them with all the food they desire, from their birth to maturity.

But, however, desirable these qualities may be in animals intended for the butcher, others of an opposite character must be attended to; these are, weight of muscle, constitution, and capabilities of propagating their species; to produce all which, quite a different system must be adopted. The proper development and growth of muscles depend in a great measure upon the use that is made of them; as a set of muscles in active exercise increase in size and vigor, while those that are but little used, lose their firmness and diminish in bulk. Cattle require not such exercise as would harden the muscular fibre, but just so much as would tend to keep them in health, and prevent their getting too fat.

By merely feeding an adult animal, we have not the power of increasing its muscular substance, but we have great power over the increase of fatty matter, which, along with the fleshy fibre, forms food.

Daily experience fully proves the folly and impolicy of neglecting young stock of any kind; but especially is such neglect injurious in the case of those animals whose value depends on their size, symmetry, and constitution, which are mainly promoted by a careful provision shelter, and a liberal supply of food during the first two years; as nearly the whole of the fleshy parts (muscle) of an animal, which afford most profit, are assimilated during the period of its growth.

AGRICULTURAL EDUCATION.

Amherst, March 18, 1854.

From what I have said, it will appear that there are difficulties in the way of Agricultural Education in Great Britain which do not exist among us. A school there must be either for the higher, the middle, or the lower class. With existing *notions*, it cannot be for all. The college at Circencester, I believe, has become essentially a school for the rich. There are in England and Scotland other schools, some more adapted to the wants of the middle class; others to those of the poor. Some are supported almost wholly by charity. Model farms are connected with some of these, in order to illustrate practically the labors of the field, of the stall, and of the dairy. Connected with the University at Edinburgh is an agricultural professorship, filled by a very distinguished man, Mr. Low, who has done much for the cause of agriculture in Scotland, and who enjoys in a high degree the confidence of Scottish farmers. Professor Low has established, in rooms devoted to that purpose in the university buildings, an extensive museum of agriculture, made up of numerous specimens of agricultural productions, together with models of improved implements, and a large collection of paintings of fine animals, as horses, neat cattle, sheep and swine, so arranged as to exhibit the peculiar qualities of each breed and the points of excellence in each individual. For the kindness of Prof. Low in exhibiting to me his modes and means of instruction, as well as for other acts of politeness and hospitality, I cannot but here record my grateful recollections. With the exception of the great museum of the Highland Agricultural Society at Edinburgh, I found nothing in Scotland better worth visiting, and *studying* intently, than this museum of his.

Of the Highland Agricultural Museum, at Edinburgh, I will only say, that it would seem as if wealth industry and good taste had there brought together and arranged in the best possible manner, every thing that could throw light on the farmer's path. The Museum of Economic Geology at London, is well worth visiting. One could hardly spend a few hours there without coming away the wiser for it. So of the Botanic Gardens and the vast collections of things amusing and useful on the old palace grounds and Kew, near London, the birthplace, if I am not mistaken, of our last king, George III. It would be impossible for any farmer to spend a day in these gardens, without bringing away some practically useful knowledge pertaining to his profession. Such collections of plants, implements, shurbs, trees, various species of wood, polished and rough, of insects hurtful to vegetation, of almost every thing, which the farmer would like to understand, as exhibited here and in other parts of the kingdom, cannot have failed to contribute to the present advanced state of British agriculture. But of all the means which have brought about so desirable a result, none I believe, have been so efficient, in proportion to the expense involved, as the lectures of such men as JOHNSTON, LOW, BRANDE and others. These men have popularized scence—have brought it to the farmers's home—made it available to practical men. Their lectures have been adapted to the wants of sound, sensible, but not technically educated men. In the same plain, unostentatious dress, they have in several instances been printed; and have found a place by the farmer's fireside. Home education for the farm has been the consequence. The farmer and his wife, his sons and his daughters, have been aided in their efforts at self education, amid the practical applications of what they learn, to the daily employemats of the farm, the garden and the dairy. I am in favour of agricultural schools. I belive that the principles of agriculture ought to be taught in our common schools even; and I could wish that every college in our country had its agricultural department.; it is desirable that the sons of farmers should have opportunity for receiving instruction in those sciences, which throw light on their employment, without going very far from home, or being absent, from the duties of the farm too long at one time; but after all I have not one doubt that lectures, carried to the homes of the people, adapted to aid home education, not on the *details of farming* alone, which, the farmer would be likely to understand quite as well as the lecturer, but on the various sciences connected with farming, to be illustrated by suitable experiments and diagrams, might be made a most economical and effecient means of diffusing agricultural education, beneficial alike to the present and the rising generation of farmers.

It is a singular fact, that Ireland, so degenerated as a portion of her population is, and so poorly educated, should be doing more to advance agricultural education in that country promises well for unhappy Ireland. Provisions for agricultural instruction exist under three forms:—1st, that of professorships connected with the colleges, as at Cork and at Belfast, at the former of which is a model and experimental farm of nearly 200 acres; 2nd, in connection with the national schools; 3rd, agricultural schools supported by private associations. I shall speak here only of those connected with the national

schools. These are of two kinds, "model agricultural schools," and "ordinary agricultural schools." The pupils of the latter are mostly young. Such of them as excel are usually advanced to the higher class of schools, where many of them are fitted to become teachers. One of these higher schools—"the model agricultural schools"—is at Glasnevin, two or three miles from Dublin. Through the politeness of the Right Hon. ALEXANDER MCDONALD, Superintendent of the national schools for Ireland, I was introduced to the gentlemen in charge of the Glasnevin school—Dr. THOMAS KIRKPATRICK, Inspector of Agricultural Education, and Mr. DONAGHY, head teacher and farmer. A more hearty reception than they gave me could hardly be imagined. I was shown the farm, the stock, the crops of wheat, barley, oats, pot toes, rye, grass, clover &c.; was taken through the buildings: had every thing explained to me; saw the young men at their work in the fields. Such crops I have seldom seen. What is more than great crops, I learn that they were obtained without extravagant expense, that here was farming with a profit such as might safely be imitated by all. The young men, nearly one hundred, were engaged at that hous on various parts of the farm, and in various employments. On speaking of their neat, cleanly and even gentlemanly appearance, although at their work, and of course dressed for that purpose, I was told that they should be called in, that I might see them in their school room and hear them examined. Not consenting that the work of the fields should be interrupted for my sake, I was told that if I would come and dine at Dr. KIRKPATRICK's the next day at 5 o'clock, they would then be at their studies, and that in the evening they should be examined. I did so. The examination took place at 7 o'clock and lasted till nine. The young men I should think were from 18 to 22 years of age. They were examined in Geography, Arithmetic, English Grammar and the Elements of Agriculture. In the general branches of a school education they acquitted themselves respectably. In every thing pertaining to agriculture, involving a great many important practical and not a few scientific questions, their answers were exceedingly prompt and accurate. On being requested to make some remarks upon the exercises, I found no difficulty, as one sometimes does, on such occasions, in saying what I thought might *please* and yet be *true*. That Institution, I am persuaded is doing much, and at no extravagant expense, for the elevation of Ireland. When I think that it is but one of many agricultural schools in that Island, and that nearly five thousand national schools are now in operation there, some of which I visited and found them well conducted, I cannot but hope well for Ireland. On leaving Glasnevin, I could not but think, that, if the kindness I had there experienced was a fair sample of Irish hospitality, as I subsequently learned it was, then I liked *Irish hospitality*.

I cannot close without mentioning a somewhat common mode of giving young men a knowledge of practical agriculture. It is that of putting a young man with some distinguished farmer, to be trained practically to the business. Mr. A., for instance, may have the reputation of being a thorough-going, substantial farmer, of excellent moral character. Mr. B., a London merchant, it may be, or a head Manchester manufacturer, or peraps a titled nobleman, or a rich commoner, who will not have the trouble to cultivate his own land, says to Mr. A., take my son into your family; give him a good horse for his own use: let him take care of the horse himself; let him work as much as he pleases; tell him all about horses, beasts, sheep and swine; about the various crops, how to grow them, their use &c., whatever pertains to practical farming; and I will pay your price. Agricultural knowledge is considered so important in England, rather I might say, it is so much in fashion, that a young gentleman is hardly considered as well educated without it. The more common price paid in such cases as the above is £100 (400 dollars) a year. I became acquainted with several farmers, who have young gentlemen at that price; and one farmer in Oxfordshire told me that he could have any number at the same price, all the time, if he chose, but that he did not care to have the trouble of them. J. A. NASA.

CORN-CULTURE.

The following mode of cultivating corn, by a correspondent of the *Dollar Newspaper*, will afford some good suggestions to our readers, and is more particularly applicable to ground which is encumbered with grass or perennial weeds. For clean, meadow, well cultivated ground, kept clean by a good system of rotation, a good cultivator and a flat surface to the soil, is decidedly best; but will not apply to *foul* land:—

Some time last summer, I wrote a reply to a correspondent from Virginia, informing him how wire grass (alias quack grass) might be killed by summer fallowing. I also stated that I would at some future time, tell him how to kill it, and at the same time raise a crop of corn on the land.

Plough your ground just before you want to plant, and harrow well. Mark out with stakes and a sled with three runners. The driver standing directly over some object selected before starting, and thus strike "bee lines." The distance of the runners apart must be regulated by the latitude and the strength of the land. The ground being laid out in perfectly straight rows, plant immediately. When the corn is up, so that the rows can be distinctly seen, take in the field a cummon sized plough and a good tractable horse. The plough must not be one of those things called, in modern phraseology, "*corn ploughs*," but a good, substantial plough which will turn a furrow well, and which is also pretty wide on the bottom. Plough from the hill, and plough close. Some farmers who plough from the hill, are contented to plough a little furrow eight or ten inches from the row, and going back plough so near the centre as to turn part of this furrow back again. This will not do; the plough must run close, close as possible, without ploughing up the corn; it does the corn much good, letting the sun in around the roots and warming the ground. If there is danger of undermining the hill too much, the land-side may be turned up a little, so as to make the furrow a little shallow on that side, but be sure that your shire is sharp, so that it slips over nothing, and your plough bright so that it turns the furrow well. Plough in this way, and then in a few days cross it just the same. If it is well done there will not be more than from six to eight inches square left in the hill; all the rest of the land is fresh. It may now be hoed, but it must be hoed from the hill. With a light shaving cut of the hoe, and a little dexterity, the hill may be clean of everything, except the corn. Then plough to the hills as is usually done the two last times, being sure to have the furrows not only meet, but lap a little, and by that time the corn will be large enough to shade the ground. By ploughing t ese four times, (twice in a row each time,) allowing proper intervals for the quack to just get a start, then meeting it and turning it under again, it will, at the end of the season, be almost as effectually killed as by summer fallowing. The only difference is, there will sometimes be a little left in the hill; but I have seen the grass quite subdued by pursuing this course two or three years.

This is the cheapest and only good way to tend corn. A few years ago, a brother of the writer had been using the cultivator in a piece of corn which was quite foul with wild morning-glory. He had cultivated a number of rows when my father came on a visit to him, and of course, went to see his corn. He strongly protested against the use of the cultivator, and urged my brother to introduce the plough, for the purpose of showing him the difference of the efficacy of the two implements. The trial was made, and the result was very decidedly for the plough. The next day a little rain fell, and soon the cultivated rows were hardly to be distinguished from those which had nothing done to them, while the ploughed rows were clear and fresh for a long time. This is not all. I did not place reliance on a single isolated fact, but having had frequent opportunities of comparing, I have uniformly found the result the same.

FEEDING COWS IN ENGLAND.

The *London Agricultural Gazette* gives the following interesting particulars of the mode of feeding dairy cows at a great establishment in Camden Town. The cattle are fed at half past five in the morning with half a bushel of brewer's grains each; after six, they have 4 lbs. of hay; at 9 they get 3 lbs. of oil cake; after that another half bushel of grains; and they are then let out, two at a time, for a few minutes to water. They then come into a clean fresh bed, and lie down till the afternoon; they then receive 30 lbs. of Mangol Wurtzel a piece; and at night, 4 or 5 lbs. more hay. Some of the cows yield, on this food 16 to 20 quarts of milk a day, though the average of the herd and of the year does not much exceed 10 quarts each day, and good milkers are bare of flesh on the very food which is making Christmas beef of dry cows beside them. If we are to breed such cattle as they have in England, or to own such milkers, we must also *feed* as they do in England.

MONTREAL MARKETS.

Hay, from 12 to $16 per 100 bundles.
Straw, 9 to $10 do
Beef, 7 to $9 per 100 lbs.
Pork, 7s 6d to 9s.
Mutton, 3 to $12 per carcase, according to quality.
Veal, 2 to $10 do do
Wheat, 8s to 9s 6d.
Indian Corn, 4s 3d.
Rye, none.
Barley, 3s 6d to 4s.
Oats, 3s to 3s 4d.
Peas, 6s 3d to 6s 6d.
Buckwheat, none.

SIR CHARLES NAPIER,

IMPORTED SHORT HORN DURHAM BULL.

THE property of Mr. Ralph Wade, Jr., near Cobourg, C. W., will serve Cows this season, 1854; thorough bred Cows at Ten Pounds, others at Two Pounds Ten Shillings each P. P.

Calved March, 1853, bred by J. M. Hopper, Esq., Middlesbro'-on-Tees, Yorkshire, England; got by Belleville, (6778), d. Polly, by Belleville (6778), g. d. Madeline, by Newham (4503), g. g. d. Ganymede, by Uptaker (5334.), g. g. g. g. d. Garland, by Matchem (2281), g. g. g. g. g. d. by Fitz Remus (2025), g. g. g. g. g. g. d. by Cato (119), g. g. g. g. g. g. g. by Whitworth, (695), g. g. g. g. g. g. g. g. d. bought of Mr. Mason, of Chilton.

1st June, 1854.

FARMER'S JOURNAL.

NOTICE TO SUBSCRIBERS & ADVERTISERS.

SUBSCRIPTIONS may be paid and Advertisements handed to the following Agents:—

Quebec, Mr. J. T. Brousseau, Bookseller.
Three Rivers, Mr. George Stobbs, do.
Sherbrooke, Mr. Wm. Brooks, Merchant.
Bytown, Mr. Alex. Bryson, Bookseller.
Kingston, Mr. John Duff, do.
Toronto, Messrs. A. H. Armour & Co., Booksellers.

And all remittances or orders of all kinds sent direct to the Office in Montreal, will be promptly attended to.

H. RAMSAY,
St. Francis Xavier St., Montreal.

PRINTING IN BOTH LANGUAGES

OR AGRICULTURAL SOCIETIES, furnished with the greatest expedition and on the most moderate terms.

H. RAMSAY.
Farmer's Journal Office.

BUREAU OF AGRICULTURE,
Quebec, 8th May, 1854.

THE following Gentlemen are re-appointed Members of the Board of Agriculture for Lower Canada for the current year, viz:—

ALFRED PINSONNEAULT, of Montreal.
JAMES THOMSON, of Bedford.
JOSEPH C. TACHÉ, of Rimouski.
PIERRE B. DUMOULIN, of Three Rivers.

JOHN ROLPH,
Minister of Agriculture.

PURE BRED SUFFOLK PIGS FOR SALE.

FROM IMPORTED STOCK.

4 SOW PIGS, 6 months old, price $12 each.
8 YOUNG PIGS from Suffolk Sow and the Yorkshire Boar that took the 2nd Prize at the Exhibition, $8 each.

IMPORTED SUFFOLK BOAR. $25.

Will be delivered at the Richmond Railroad Station.

W. AYLMER.

Melbourne, 1st June, 1854.

COLUMBUS.

THIS SUPERB STALLION will stand for the service of MARES, at the Stables of the Subscriber, on MONDAY, TUESDAY, WEDDAY and THURSDAY, and at the FERRY HOTEL, Longueuil, on FRIDAY and SATURDAY, each week of the Season.

He is four years old, of a beautiful Jet Black Colour, stands sixteen hands high, and weighs thirteen hundred and fifty pounds.

He took the FIRST PRIZE at the MONTREAL COUNTY SHOW in 1852, and again at the DISTRICT SHOW same year, also the FIRST PRIZE in the class of three year Colts at the GREAT PROVINCIAL EXHIBITION at MONTREAL, in September last, beating several Colts from Upper Canada.

TERMS—$5 FOR THE SEASON.

Payment must, in all cases be made in advance, and no second service will be rendered within a fortnight.

EDWARD QUIN.

Long Point, 1st June, 1854.

ACTS OF PARLIAMENT, &c.

THE Subscriber has for Sale Copies of the following:—

Magistrate's Acts of Lower Canada.
Canada Custom's Acts, Tariff and Regulations.
Free Banking Acts.
Acts to provide for the formation of Incorporated Joint Stock Companies.
An Act to make more ample provision for the incorporation of the Town of St. Hyacinthe.
Railway Clauses, Consolidation Acts, and Acts relating to the Grand Trunk Railway.
Acts, &c., relating to the Champlain and St. Lawrence Railroad.
An Act to Consolidate and Regulate the General Clauses relating to Railways.
Trial of Joseph Bérubé and Cérarée Thériault, his wife.
The Revised Acts and Ordinances of Lower Canada.
Ditto, ditto, in French.
Statutes of Canada, 2 vols. 8vo. 1852-3.
Ditto, ditto, from 1841 to 1851, 4to. half-bound calf.
The Magistrate's Manual, by Hugh Taylor.

H. RAMSAY.

Montreal, 1st May, 1854.

NOTICE.

CLERK'S OFFICE, LEGISLATIVE ASSEMBLY,
Quebec, 3rd May, 1854.

THE time fixed by the Rules of the House for receiving Petitions for Private or Local Bills, will expire on the TWENTY-SEVENTH JUNE, one thousand eight hundred and fifty-four.

No Petition will be received unless real signatures be subscribed on the same sheet or sheets of parchment or paper on which such Petition is transcribed—Printed Petitions *may* be received, provided there are at least three genuine signatures upon the same printed sheet.

W. B. LINDSAY.
Clerk Assembly.

☞This Notice to be published in the *Canada Gazette* and other Newspapers of the Province, until the opening of Parliament.

Quebec, 10th May, 1854.

IMPORTANT TO

DAIRYMEN AND BREEDERS

OF

SHORT HORNS!

IN consequence of the ill state of health of Mrs. Parsons, and she being recommended by her Physician to visit the Old Country, together with other family arrangements, the subscriber has resolved upon discontinuing his Dairy altogether, and there will consequently be offered FOR SALE BY AUCTION on Tuesday, 27th JUNE next, at his residence, Culdaffe Farm, near Guelph, C. W., the WHOLE of his VALUABLE HERD comprising, Thorough-Bred Short Horn Cows, Heifers, and Heifer Calves; a two year's old and yearling Bull and Bull Calves, with a number of choice Grade Durham Cows, Heifers with Calves, and two year's old Heifers, all nearly thorough-bred, and selected with skill and care for years past for his own intended use from the deepest milkers in his Herd.

The Farmers of Canada, therefore will now have an opportunity, seldom offered, to supply themselves with a foundation of a well bred Milking Herd.

The Subscriber thinks it desirable to state that, he at first anticipated selling only a part of his Herd, but has decided otherwise, that it may not be said he had reserved the choicest of his Herd for his own use hereafter *all* therefore, will be sold without reserve to the highest bidder. A credit of nine months will be given.

To make the Sale more attractive, the Subscriber has concluded on offering some of his thorough-bred Leicester Sheep—chiefly young, and part of them by Mr John Wilson's imported bell ram. A number of his improved small breed of pigs (Lord Radnor's and Lord Ducie's blood) not to be equalled for symmetry and quality.

Also a powerful Yoke of good Working Oxen.

H. PARSONS,

Culdaffe Farm, near Guelph, C. W.

April 20th, 1854.

N B.—The far-famed Bates' Duchess blood is infused more or less throughout this Herd, from the celebrated Stock of George Vail, Esq., of Troy, N. Y., and likewise the blood of the Herds of the Hon. Adam Ferguson, of Woodhill, and of John Howitt, Esq., of Guelph. Any comment upon the Stock of either gentlemen would be superfluous here.

Catalogues with further particulars and Pedigrees, will be shortly out.

PRIZE SCHOOL BOOKS.

THE Subscriber obtained Diplomas at the Provincial Exhibitions held at Hamilton and Montreal in 1853, for "the Best Collection of School Books printed and bound in Canada for the use of Common and Grammar Schools." Among these books will be found

THE NATIONAL SERIES,

Printed from new stereotype plates, on clear paper, and substantially bound. They are page for page with other editions in use in Western Canada, and great care has been taken to render them equal in every respect to the samples exhibited at the Provincial Exhibition.

CURRICULUM LATINUM.

This series of Latin Classics has been published in cheap form, so as to supersede the use of costly imported books. It consists of Cornelius Nepos, Virgilii Georgica, Cicero de Amicitia, Cicero de Senectute, Ovidii Fasti, Cæsar de Bello Gallico, Q. Curtius, Taciti Agricola, Horatii Carmina. These may be had separately or in two volumes, one of Prose, the other of Poetry.

CHEAP CANADIAN EDITIONS.

Walker's Dictionary, Mavor's, Carpenter's, Webster's, and Catholic Spelling Books; Murray's large and small Grammars; Lennie's do.; Walkinghame's Arithmetic, &c. &c.

NEW SCHOOL BOOKS.

A History of Canada, new edition, 2s.
Do. do. in French, just published, 2s.
A History of Rome, do. 2s.
A History of England, in the Press.
Geography of Canada, do.
Ramsay's Quarter Dollar Atlas, 12 outlined Maps.
Ramsay's Scripture Atlas, price 4d.

WHOLESALE PAPER WAREHOUSE.

The Subscriber is receiving large additions to his stock of British and Foreign Writing, Drawing and Wrapping Papers, selected during winter by himself in the English, Scotch and French markets. He has also an ample assortment of Account Books, of all sizes and different modes of ruling, English School Books, Bibles, Prayer Books, &c.

Booksellers are invited to inspect the stock of cheap standard literature.

HEW RAMSAY,
St. Francis Xavier St

Montreal, April 28, 1854.

JUST PUBLISHED,

RAMSAY'S QUARTER DOLLAR ATLAS, Quarto size, containing 12 Outlined Maps of 1st Eastern Hemisphere, 2nd Western Hemisphere, 3rd Europe, 4th Asia, 5th Africa, 6th North America, 7th South America, 8th Canada, 9th England, 10th Scotland 11th Ireland, 12th Palestine.

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THE EDINBURGH SCHOOL ATLAS, Quarto, cloth. Price 5s., containing 36 Maps, Colored

THE IMPERIAL ATLAS, Ancient and Modern, 47 Maps. Price 32s 6d.

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REWARD BOOKS, 50 Gross—various prices.

DRAWING BOOKS, 10 Gross, 1s. to 6s. per dozen.

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A HISTORY OF ROME, for the Use of Schools. Price 2s.

The Press, without a dissenting voice, has expressed an unqualified approval of this work. From the ability with which it is written, as well as its remarkable cheapness, the Publisher hopes it will come into general use.

SCHOOL REQUISITES.

PAPER, SLATES, SLATE PENCILS, MAPS, ATLASSES, GLOBES, &c., in great variety for Sale, (Wholesale,) on the most reasonable terms, by

H RAMSAY.

BULWER'S NOVELS.

A NEW uniform English Edition of Sir E. L. Bulwer's Novels at 2s 3d per volume.

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RECEIVED in monthly parts—also the Various Works issued by the same Publishers.

GLOBES, MAPS, &c.

A FARTHER supply just to hand.

ENCYCLOPÆDIA BRITTANICA.

A NEW Edition of this magnificent Work is now in course of publication. The Subscriber has just received from Edinburgh the Four First Vols., in large quarto, abundantly illustrated with Steel Engravings. Price 25s. per volume.

HEW RAMSAY.

PRINTING AND BOOKBINDING.

THE undersigned executes with neatness and despatch, and at moderate prices, all kinds of PRINTING, such as, BOOKS, CATALOGUES, PRIZE LISTS, CARDS for CATTLE SHOWS, &c. —ALSO— BOOKBINDING, either Printed Books, or Merchants Ledgers, Journals, &c.

H. RAMSAY.

1854.

THE COUNTY OF MONTREAL AGRICULTURAL SOCIETY,

OFFER the following Premiums, for the following Crops:—

ENGLISH CLASS.

	£	s.	d.	£	s.	d.	£	s.	d.
Potatoes, three premiums,	2	0	0	1	15	0	1	10	0
Carrots, three premiums,	2	0	0	1	15	0	1	10	0
Mangol Wurtzel, three premiums,	2	0	0	1	10	0	1	5	0
Turnips, three premiums,	1	10	0	1	5	0	1	0	0
Indian Corn, three premiums,	2	0	0	1	10	0	1	0	0
Horse Beans, three premiums,	1	10	0	1	5	0	1	0	0

RULES AND REGULATIONS.

A Field of five arpents, at least, will be required to entitle a Farmer in this Class to compete for Potatoes

One arpent for Indian Corn.

One arpent for Beans.

Half an arpent for Turnips, Carrots, Mangol Wurtzel, the whole to be field culture.

No person allowed to compete unless a member of the society.

No premium to be given unless farm is free from noxious weeds.

That parties to whom premiums are awarded, shall report to the Society, the system adopted in the production of the crops.

That such premiums shall be paid only upon interrogatories being answered, and Circular returned filled up, addressed to the Secretary-Treasurer This rule will be enforced strictly.

Notice of competition to be given to Secretary-Treasurer on or before 10th July next.

By Order,
JAMES SMITH,
Secretary-Treasurer.

3

AGRICULTURAL SOCIETY

No. 2,

COUNTY OF HUNTINGDON,

OFFER the following PREMIUMS for STANDING and GREEN CROPS, open to all Members of this Society.

Best Wheat, not less than 4 arpents, 6 prizes, 30s. 25s. 20s. 15s. 10s. 5s.

Best Barley, not less than 4 arpents, 4 prizes, 20s. 15s. 10s. 5s.

Best Oats, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s. 5s.

Best Peas, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s 5s.

Best Clover and Timothy Hay, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s. 5s.

Best Flax Seed, not less than ½ arpent, 4 prizes, 20s. 15s 10s. 5s.

Best Indian Corn, not less than ½ arpent, 3 prizes, 20s. 15s. 10s.

Best Potatoes, not less than 1 arpent, 7 prizes, 25s. 20s. 15s. 12s. 6d. 10s. 7s. 6d. 5s.

Best Carrots, not less than ½ arpent, 4 prizes, 20s. 15s. 10s. 5s.

Best Mangols, not less than ½ arpent, 4 prizes, 20s. 15s. 10s. 5s.

For the best managed Farms, 9 prizes, 30s. 25s. 20s. 17s. 6d 15s. 12s. 6d. 10s. 7s. 6d. 5s.

Competitors on Farms and Growing Crops must notify the Secretary on or before Saturday, the Eighth day of July, 1854, and pay 1s 3d. on entering Growing Crops, and on both 2s 6d.

The Judges will commence on Monday, 10th of July, to view and judge the above.

By Order, JOHN DUNN.

Secretary-Treasurer.

Laprairie, 10th March, 1854.

PREMIUMS OFFERED BY THE

COUNTY OF DRUMMOND

AGRICULTURAL SOCIETY.

THE Society will hold their general SHOW of LIVE STOCK for the distribution of PREMIUMS, at DRUMMONDVILLE, on the second TUESDAY, in SEPTEMBER, 1854. And their WINTER SHOW of GRAIN, &c., at the same place on the second TUESDAY, in JANUARY 1855.

HORSES.

	s.	s.	s.	s.	s.
Stallions, 4 Prizes,		55	45	40	20
Mares with Foal by her side. 5 do,	35	30	27 6	25	20
Colts or Fillies, 3 years old. 5 do,	25	20	15	10	5
Colts or Fillies, 2 years old. 5 do,	25	20	15	10	5
Colts or Fillies, 1 year old, 4 do,		20	15	10	5

CATTLE.

Bulls short horned, 3 do,			30	25	20
Bulls 2 years old short horned, 3 do,			20	15	10
Bulls 1 year old short horned, 3 do,			15	10	5
Bulls any other breed 2 years old. 3 do,			20	15	10
Bulls any other breed 1 year old. 3 do,			15	10	5
Cows short horned, 3 do,			25	20	15
Cows half breed, 3 do,			25	20	15
Cows any other breed, 5 do,	25	20	15	10	5
Heifers short horned 2 years old, 3 do,			20	15	10

Heifers short horned 1 year old, 3 do, .			15	10		5
Heifers half breed 2 years old, 5 do, .	20	15	10	7	6	5
Heifers half breed 1 year old, 4 do, .		15	10	7	6	5
Heifers any other breed, 2 years old, 5 do. . . .	20	15	10	7	6	5
Heifers any other breed 1 year old, 4 do, . . .		15	10	7	6	5
Steers 3 years old, 5 do, . . .	20	15	10	7	6	5
Steers 2 years old, 4 do, . . .		15	10	7	6	5
Oxen, 5 do, . .	30	25	20	15		10
SHEEP.						
Rams, 4 prizes, .		25	20	15		10
Rams 1 year old, 3 do. . . .			25	20		15
Ewes, (3). 4 do. .		25	20	15		10
Ewe Lambs, (3), 4 do. . . .		20	15	10		5
SWINE.						
Boars, 4 do. . .		30	25	20		15
Sows with 2 young pigs 1 sow 1 boar 5 do. . . .	25	20	15	10	7	6
Domestic Fowls, 5 do. . . .	10	7 6	5	3 9	2	6
Ploughing for young men under 19 yrs. of age, 5 do. .	20	15	10	7 6		5

OXEN AND 3 YEARS OLD STEERS TO BE SHOWN YOKED.

Cows, Bulls, Heifers, Horses, and Colts, must be shown tied up. Cows to have calved this year.

Competitors in the class of Short Horns to annex their pedigree to the entry. All entries to be made 3 days previous to the Show. The above rules as well as the printed By-Laws of the Society, will be strictly enforced.

THE WINTER SHOW.

Wheat Black Sea 2 Bushels, 4 prizes		20	15	10		5
Wheat any other sort, 2 bushels, 4 do. .		20	15	10		5
Oats large, 2 bush, 4 do.		15	12 6	7	6	5
Oats small, 2 bush. 4 do.		15	12 6	7	6	5
Corn 2 bush. 4 do. .		15	12 6	10	7	6
Peas small, 2 bush. 3 do,			15	10		5
Peas large, 2 bush 3 do.			10	7 6	3	9
Beans, 1 bushel, 4 do. .		10	7 6	5	2	6
Timothy, 1 bush. 3 do.			15	10		5
Butter, tinnet of not less than 30 lbs 6 do.	25	20	15	10	7 6	2 6
Cheese, not less than 20 lbs., 3 do.				10	6 3	3 9
Sugar maple not less than 30 lbs 4 do. .			10	6 3	5	3 9
Potatoes, 2 bush. 3 do.				8	4	3
Onions ½ bushel, 3 do.				5	3	2
Carrots 1 bushel, 3 do.				6 3	5	3 9
Turnips Swede 2 bush. 3 do.				5	3	2
Turnips white 2 bush. 3 do.				5	3	2
Cabbage (6,) 4 do. . .			6 3	3 9	3	2
Knitting Socks, 3 do. .				3 6	2 6	1 6
Do. Stockings, 3 do.				3 6	2 6	1 6
Fancy knitting work, 3 do.				5	3	2
Straw work, hats or bonnets plain, 3 do. . .				7 6	5	2 6
Hams smoked (2) 3 do .				10	7 6	5
Cloth woolen, 10 yds, 3 do.				8	7	5

PRIX OFFERT

Par la Société d'Agriculture du Comté de Drummond, aux Membres d'Origine Française, qui sera tenu au village de Drummondville, le Second Mardi de Septembre, 1854.

BESTIAUX.						
Vache, 7 prix, 12	10	8	7 6	5	3	2 6
Taure 2 ans, 4 do. . .			7 6	5	3	2 6
Taure, 1 an, 4 do. . .			7 6	5	3	2 6
CHEAVAUX.						
Jument, 4 do.			12	10	6	4
Pouliche ou Poulin, 3 ans. 4 do.			7 6	5	3	2 6
Do. 2 ans, 4 do.			7 6	5	3	2 6
Do. 1 an, 4 do.			7 6	5	3	2 6
MOUTONS.						
Bellier, 4 do.			7 6	5	3	2 6
Agneau, 4 do.			7 6	5	3	2 6
Brebis, 5 do.	10		7 6	5	3	2 6
Agnelles (2,) 4 do.			7 6	5	3	2 6
COCHONS.						
Truie, 5 do.	10		7 6	5	3	2 6

Les Vaches devront avoir vélées cette année. Bestiaux et Chevaux devront être attachés. Toutes entrées devront être faites trois Jours avant l'Exhibition.

R. J. MILLAR.
Secretary-Treasurer.
Drummondville, 1st June, 1854.

AGRICULTURAL ASSOCIATION FOR LOWER CANADA.

AGRICULTURAL AND INDUSTRIAL EXHIBITION to take place at QUEBEC on the 12th, 13th, 14th, and 15th of SEPTEMBER, 1854.

MINISTER OF AGRICULTURE,
THE HON. DR. ROLPH, M. P. P.

PRESIDENT OF THE BOARD OF AGRICULTURE,
MAJOR T. E. CAMPBELL.

PRESIDENT OF THE ASSOCIATION,
J. GIBB, Esq.

Chairman of the Local Committee, Quebec.
J. GIBB, Esq.

WM. EVANS, Esq., *Secretary-Treasurer of Board of Agriculture and of Agricultural Association.*

J. R. ECKART, Esq., *Secretary of Local Committee, Quebec.*

GENERAL ARRANGEMENTS.

TUESDAY, 12th September. Inspection of Implements and Industrial Productions.

WEDNESDAY, 13th September.—Trial of Implements and Exhibition of Industrial Productions. Arrangement and Inspection of Stock.

THURSDAY, 14th September.—Exhibition of Stock, Implements, &c.

FRIDAY, 15th September.—Exhibition of Prize Stock, Implements, &c. Auction of Stock, &c.

The Competition is open to Exhibitors from all parts of the Province. No Certificate of Entry can be received AFTER 10TH AUGUST.

The Members of Agricultural Societies of the County wherein the Annual Exhibition may be held shall also be Members of the Association for that year, provided the Agricultural Society of the said County shall devote its whole funds for the year, including the Government Grant, in aid of the Association.

The payment of 5s., and upwards constitutes a person a Member of the Agricultural Association of Lower Canada for one year, and Two Pounds Ten Shillings for Life, when given for that specific object, and not as a contribution to the Local Fund.

Members of the Association are admitted to the Show-Yard without payment, *provided they make application to the Secretary for Tickets of admission* BEFORE THE 8TH SEPTEMBER. All others to pay 1s 3d each time of entrance.—Children to pay half-price.

CLASS 1.—CATTLE.

SHORT-HORN OR DURHAM.

SECTION.	£	s.	d.
1. Best aged Bull, ...	6	10	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do. Certificate of Merit,			
2. Best 3 years old Bull, . . .	5	0	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do. Certificate of Merit,			
3. Best 2 years old Bull, . . .	4	0	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do, Certificate of Merit,			
4. Best 1 year old Bull, . . .	3	10	0
2nd do, ...	2	5	0
3rd do, ...	1	5	0
4th do, Certificate of Merit,			
5. Best Cow, ...	4	0	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do, Certificate of Merit,			
6. Best 3 years old Cow, . . .	4	0	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do, Certificate of Merit,			
7. Best 2 years old Heifer, in Milk or in Calf, ...	3	0	0
2nd do, ...	2	0	0
3rd do, ...	1	0	0
4th do, Certificate of Merit,			
8. Best 1 year old Heifer, . .	2	10	0
2nd do, ...	2	0	0
3rd do, ...	1	0	0
4th do, Certificate of Merit,			
AYRSHIRE.			
9. Best aged Bull, ...	6	10	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do, Certificate of Merit,			
10. Best 3 years old Bull, . . .	5	0	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do, Certificate of Merit,			
11. Best 2 years old Bull, . . .	4	0	0
2nd do, ...	3	0	0
3rd do, ...	2	0	0
4th do, Certificate of Merit,			
12. Best 1 year old Bull, . . .	3	10	0
2nd do, ...	2	5	0
3rd do, ...	1	5	0
4th do, Certificate of Merit,			

13. Best Cow, ... 4 0 0
2nd do, ... 3 0 0
3rd do, ... 2 0 0
4th do, Certificate of Merit,
14. Best 3 years old Cow, . . . 4 0 0
2nd do, ... 3 0 0
3rd do, ... 2 0 0
4th do, Certificate of Merit,
15. Best 2 years old Heifer, in Milk or in Calf, ... 3 0 0
2nd do, ... 2 0 0
3rd do, ... 1 0 0
4th do, Certificate of Merit,
16. Best 1 year old Heifer, . . . 2 10 0
2nd do, ... 2 0 0
3rd do, ... 1 0 0
4th do, Certificate of Merit,

DEVON.

17. Best aged Bull, ... 4 0 0
2nd do, ... 3 0 0
3rd do, Certificate of Merit,
18. Best 2 year old Bull, ... 3 0 0
2nd do. 2 0 0
3rd do. Certificate of Merit, 0 0
19. Best 1 year old Bull, . . . 2 0 0
2nd do. 1 0 0
3rd do. Certificate of Merit, 0
20. Best Cow, ... 3 0 0
2nd do. 2 0 0
3rd do. Certificate of Merit,
21. Best 2 year old Heifer, in Milk or in Calf, ... 2 0 0
2nd do. 1 10 0
3rd do. Certificate of Merit,
22. Best 1 year old Heifer, . . . 1 5 0
2nd do. 1 0 0
3rd do. Certificate of Merit,

GRADE CATTLE.

23. Best Cow, ... 3 15 0
2nd do. 3 10 0
3rd do. 3 0 0
4th do. 2 0 0
5th do. 1 15 0
6th do. 1 10 0
7th do. 1 5 0
8th do. 1 0 0
9th do. Certificate of Merit,
24. Best 2 year old Heifer whether in milk or in Calf, . . . 3 0 0
2nd do. 2 15 0
3rd do. 2 10 0
4th do. 2 0 0
5th do. 1 10 0
6th do. 1 5 0
7th do. 1 0 0
8th do. Certificate of Merit,

CANADIAN BREED.

25. Best aged Bull, ... 4 0 0
2nd do. 3 0 0
3rd do. Certificate of Merit,
26. Best 3 year old Bull. . . . 4 0 0
2nd do. 3 0 0
3rd do. Certificate of Merit,
27. Best 2 year old Bull, . . . 2 0 0
2nd do. 1 10 0
3rd do. Certificate of Merit,
28. Best 1 year old Bull, . . . 1 5 0
2nd do. 1 0 0
3rd do. Certificate of Merit,
29. Best Cow, ... 3 15 0
2nd do. 3 10 0
3rd do. 3 5 0
4th do. 3 0 0
5th do. 2 10 0
6th do. 2 0 0
7th do. 1 5 0
8th do. Certificate of Merit,
30. Best 2 year old Heifer, in Milk or in Calf, ... 3 0 0
2nd do. 2 10 0
3rd do. 2 0 0
4th do. 1 15 0
5th do. 1 10 0
6th do. 1 5 0
7th do. Certificate of Merit,
31. Best 1 year old Heifer, . . 2 0 0
2nd do. 1 15 0
3rd do. 1 10 0
4th do. 1 5 0
5th do. 1 0 0
6th do. Certificate of Merit,

FAT CATTLE.

32. Best Ox or Steer, ... 3 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,
33. Best Cow or Heifer, . . . 3 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,

WORKING OXEN.

34. Best Yoke Working Oxen, . . 3 0 0
2nd do. 2 15 0
3rd do. 2 10 0
4th do. 2 0 0
5th do. 1 15 0
6th do. 1 10 0
7th do. 1 5 0
8th do. 1 0 0
9th do. Certificate of Merit,

CLASS 2.—SHEEP.

LEICESTER OR LONG-WOOL.

SECTION.
1. Best Ram 2 shears or over, . 4 0 0
2nd do. . . . 3 0 0
3rd do. . . . 2 0 0
4th do. . . . 1 0 0
5th do. Certificate of Merit,
2. Best 1 shear Ram, . . . 3 10 0
2nd do. . . . 2 0 0
3rd do. . . . 1 10 0
4th do. . . . 1 0 0
5th do. Certificate of Merit,
3. Best 3 aged Ewes, . . . 4 0 0
2nd do. . . . 3 0 0
3rd do. . . . 2 0 0
4th do. . . . 1 0 0
5th do. Certificate of Merit,
4. Best 1 shear Ewes, . . . 3 10 0
2nd do. . . . 2 0 0
3rd do. . . . 1 10 0
4th do. . . . 1 0 0
5th do. Certificate of Merit,

SOUTHDOWN OR SHORT-WOOL.

5. Best Ram 2 shears and over, . 3 0 0
2nd do. . . . 2 0 0
3rd do. Certificate of Merit,
6. Best Shearling Ram, . . . 2 0 0
2nd do. . . . 1 0 0
3rd do. Certificate of Merit,
7. Best 3 Ewes 2 shears and over, 3 0 0
2nd do. . . . 2 0 0
3rd do. Certificate of Merit,
8. Best 3 Shearling Ewes, . . 2 0 0
2nd do. . . . 1 0 0
3rd do. Certificate of Merit,

MERINO AND SAXON.

9. Best Ram 2 shears and over, . 3 0 0
2nd do, ... 2 0 0
3rd do. Certificate of Merit,
10. Best Shearling Ram, . . . 2 0 0
2nd do. 1 0 0
3rd do. Certificate of Merit,
11. Best 3 Ewes 2 shear and over, 3 0 0
2nd do. 2 0 0
3rd do. Certificate of Merit,
12. Best 3 Shearling Ewes, . . 2 0 0
2nd do. 1 0 0
3rd do. Certificate of Merit,

FAT SHEEP.

13. Best 3 Fat Weathers, . . . 3 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,
14. Best 3 Fat Ewes, ... 3 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,

CLASS 3.—SWINE.

SECTION.
1. Best Boar of any age or breed, . 4 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do Certificate of Merit,
2. Best Sow of any age or breed, . 4 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,

SMALL BREED.

3. Best Boar, ... 4 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,
4. Best Sow, ... 4 0 0
2nd do. 2 0 0
3rd do. 1 0 0
4th do. Certificate of Merit,

CLASS 4.—HORSES.

DRAUGHT HORSES.

SECTION.
1. Best Stallion, ... 7 10 0
2nd do. 6 0 0
3rd do. 5 0 0
4th do. 4 0 0
5th do. Certificate of Merit,
2. Best Stallion Canadian breed, . 7 10 0
2nd do. 6 0 0
3rd do. 5 0 0
4th do. 4 0 0
5th do. Certificate of Merit,
3 Best 3 year old Stallion, . . 5 0 0
2nd do. 4 0 0
3rd do. 3 0 0
4th do. Certificate of Merit,
4. Best 2 year old Stallion, . . 2 10 0
2nd do. 2 0 0
3rd do. 1 10 0
4th do. Certificate of Merit,
5. Best Brood Mare and Foal, . 6 0 0
2nd do. 5 0 0
3rd do. 4 0 0
4th do. 3 0 0
5th do. 2 0 0
6th do. 1 0 0
7th do. Certificate of Merit,
6. Best 3 year old Filly, . . . 4 0 0
2nd do. 3 0 0
3rd do. 2 0 0
4th do. Certificate of Merit,
7. Best 2 year old Filly, . . . 2 10 0
2nd do. 2 0 0
3rd do. 1 5 0
4th do. Certificate of Merit,
8. Best Span Draught Horses, . . 4 0 0
2nd do. 2 10 0
3rd do. 1 5 0
4th do. Certificate of Merit,
9. Best Span Matched Carriage Horses, 4 0 0
2nd do. 2 10 0
3rd do. 1 5 0
4th do. Certificate of Merit,
10. Best Saddle Horse, ... 2 0 0
2nd do. 1 10 0
3rd do. 1 0 0
4th do. Certificate of Merit,

BLOOD HORSES.

11. Best Thorough Bred Stallion, . 7 10 0
2nd do. 5 0 0
3rd do. 3 0 0
4th do. Certificate of Merit,
12. Best 3 year old do. . . . 5 0 0
2nd do. 4 0 0
3rd do. 3 0 0
4th do. Certificate of Merit,

13. Best Thorough Bred Mare and Foal,	6	0	0
2nd do.	5	0	0
3rd do.	4	0	0
4th do Certificate of Merit,			
14. Best 3 years' old Filly,	4	0	0
2nd do.	3	0	0
3rd do.	2	0	0
4th do. Certificate of Merit,			

CLASS 5.—DAIRY PRODUCE.

SECTION.

1. Best Firkin of Butter not less than 56 lbs.	2	10	0
2nd do.	2	5	0
3rd do.	2	0	0
4th do.	1	15	0
5th do.	1	10	0
6th do.	1	5	0
7th do.	1	0	0
8th do.	0	15	0
9th do.	0	10	0
10th do.	0	5	0
2. Best Cheese not less than 30 lbs.,	2	10	0
2nd do.	2	5	0
3rd do.	2	0	0
4th do.	1	15	0
5th do.	1	10	0
6th do	1	5	0
7th do.	1	0	0
8th do.	0	15	0
9th do.	0	10	0
10th do.	0	5	0

CLASS 6.—SUGAR FROM THE MAPLE OR BEET.

SECTION.

1. Best Sample of Maple Sugar not less than 14 lbs.,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
2. Best Sample of Sugar made from the Beet, not less than 14 lbs.,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0

CLASS 7.—FIELD PRODUCTIONS.

SECTION.

1. Best 2 Minots Winter Wheat,	2	10	0
2nd do.	1	15	0
3rd do.	1	5	0
2. Best 2 Minots Spring Wheat,	2	10	0
2nd do.	1	15	0
3rd do.	1	5	0
3. Best 2 Minots Barley,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
4. Best 2 Minots Rye,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
5. Best 2 Minots Oats,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
6. Best 2 Minots Peas,	1	10	0
2nd do	1	0	0
3rd do.	0	10	0
7. Best 2 Minots Marrow fat Peas,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
8. Best 2 Minots Horse Beans,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
9. Best 2 Minots White Beans,	1	5	0
2nd do.	0	15	0
3rd do.	0	10	0
10. Best 2 Minots Indian Corn in the Ear,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
11. Best Minot of Timothy Seed,	1	5	0
2nd do.	0	15	0
3rd do.	0	10	0
12. Best Minot of Clover Seed,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
13. Best Minot Hemp Seed,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
14. Best Minot Flax Seed,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
15. Best Minot Mustard Seed,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
16. Best Swedish Turnip Seed not less than 28 lbs.,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
17. Best Bale of Hops not less than 112 lbs,	2	10	0
2nd do.	2	0	0
3rd do.	1	10	0
18. Best Minot of Potatoes,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
19. Best Minot wedish Turnips,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
20. Best Minot White Globe Turnips,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
21. Best Minot Yellow Aberdeen Turnips,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
22. Best Minot Orange Carrots,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
23. Best Minot White Belgium Carrots,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
24. Best Minot Mangold Wurtzel (long red),	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
25. Best Minot Yellow Globe Mangold Wurtzel,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
26. Best Minot Sugar Beet,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
27. Best 12 Roots of Khol Rabi,	0	10	0
2nd do.	0	5	0
28. Best Minot Parsnips,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
29. Best 4 large squash for Cattle,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
30. Best 20 lbs. Manufactured Tobacco growth of Canada East,	1	0	0
2nd do.	0	10	0
3rd do.	0	5	0
31. Best 20 lbs. Manufactured Tobacco, the growth of Canada West,	1	0	0
2nd do.	0	10	0
3rd do.	0	5	0
32. Best Broom Corn Brush, 28 lbs.	1	0	0
2nd do.	0	10	0
3rd do.	0	5	0
33. Best Sample of Dressed Flax, not less than 112 lbs.	3	0	0
2nd do.	2	0	0
3rd do.	1	0	0
34. Best Sample of Hemp, 112 lbs.,	3	0	0
2nd do.	2	0	0
3rd do.	1	0	0

CLASS 8.—AGRICULTURAL IMPLEMENTS.

SECTION.

1. Best Wooden Plough,	2	0	0
2nd do.	1	10	0
3rd do.	1	0	0
2. Best Iron Plough,	2	0	0
2nd do.	1	10	0
3rd do.	1	0	0
3. Best Subsoil Plough,	2	0	0
2nd do.	1	10	0
3rd do.	1	0	0
4. Best Pair of Harrows,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
5. Best Pair Light Harrows,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
6. Best Drill Harrow,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
7. Best Cultivator,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
8. Best Fanning Mill,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
9. Best Horse Power Thrasher and Separator,	5	0	0
2nd do.	2	0	0
3rd do.	1	0	0
10. Best Grain Drill,	3	0	0
2nd do.	2	0	0
3rd do.	1	0	0
11. Best 2nd Drill or Barrow,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
12. Best Straw Cutter,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
13. Best Smut Machine,	1	10	0
2nd do.	0	15	0
14. Best Portable Grist Mill,	3	0	0
2nd do.	2	0	0
3rd do.	1	0	0
15. Best Grain Crusher,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
16. Best Corn and Cob Crusher,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
17. Best Root Slicer for Stock,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
18. Best Clover Machine,	2	0	0
2nd do.	1	5	0
3rd do.	0	10	0
19. Best Horse Cart,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
20. Best Hay and Grain Cart,	1	10	0
2nd do.	1	0	0
3rd do.	0	10	0
21. Best Metal Roller,	2	0	0
2nd do.	1	0	0
22. Best Wooden Roller,	2	0	0
2nd do.	1	0	0
23. Best Horse Rake,	1	10	0
2nd do	1	0	0
3rd do.	0	10	0
24. Best Hand Rake,	1	0	0
2nd do.	0	10	0
25. Best Reaping Machine,	5	0	0
2nd do.	3	0	0
3rd do.	2	0	0
26. Best Mowing Machine,	5	0	0
2nd do.	3	0	0
3rd do.	2	0	0
27. Best Stump Extractor,	2	10	0
2nd do.	1	10	0
3rd do.	1	0	0
28. Best Potatoe Digger,	1	0	0
2nd do.	0	15	0
3rd do.	0	10	0
29. Best Thistle or Weed Extractor,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0

30. Best Farm Gate,	0	15	0
2nd do.	0	10	0
31. Best Machine for making Drain Tiles,	2	10	0
2nd do.	1	10	0
32. Best Brick Making Machine,	2	10	0
2nd do.	1	10	0
33. Best Set of Horse Shoes,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
34. Best half dozen Hay Forks,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
34½. Best half dozen Manure Forks,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
35. Best half dozen Hay Rakes,	0	10	0
2nd do.	0	10	0
3rd do.	0	5	0
36. Best half dozen Scythe Snaiths,	0	10	0
2nd do.	0	5	0
37. Best Grain Cradle,	0	10	0
2nd do.	0	5	0
38. Best Ox Yoke and Cows,	0	10	0
2nd do	0	5	0
39. Best dozen Grain Shovels of Wood,	0	15	0
2nd do.	0	10	0
3rd do.	0	5	0
40. Best half dozen Iron Shovels,	0	15	0
2nd do.	0	10	0
2rd do.	0	5	0
41. Best half dozen Narrow Axes,	0	15	0
2nd do	0	10	0
3rd do.	0	5	0
42. Best Machine for forming Drills for Sowing Grain,	1	10	0
2nd do	1	0	0
43. Best Agricultural Implements not enumerated in the foregoing list,	1	10	0
2nd do.	1	0	0
44. Best Horse Hoe,	1	10	0
2nd do.	1	0	0
45. Best Cheese Press,	1	10	0
2nd do.	1	0	0
46. Best Set of Dairy Utensils,	2	10	0

FOREIGN STOCK AND IMPLEMENTS.

Premiums for Stock and Implements belonging to parties residing out of Canada. Exhibitors in Classes 9 and 10 are admitted free of charge.

CLASS 9.—FOREIGN STOCK.

SECTION.			
1. Best Durham Bull not over 5 years old, Certificate, and	2	10	0
2nd do.	2	10	0
2. Best Durham Cow, Certificate, and	1	10	0
2nd do	1	10	0
3. Best Ayrshire Bull not over 5 years old, Certificate, and	2	10	0
2nd do.	2	10	0
4. Best Ayrshire Cow, Certificate and	1	10	0
2nd do.	1	10	0
5. Best Hereford Bull not over 5 years old, Certificate and	2	10	0
2nd do.	2	10	0
6. Best Devon Bull not over 5 years old, Certificate and	2	10	0
2nd do.	2	10	0
7. Best Devon Cow, Certificate and	1	10	0
2nd do.	1	10	0
8. Best Stallion for Agricultural Purposes, Certificate and	3	0	0
2nd do.	3	0	0
9. Best Blood Stallion, Certificate and	3	0	0
2nd do.	3	0	0
10. Best Leicester Ram, Certificate and	1	10	0
2nd do.	1	10	0
11. Best 3 Leicester Ewes, Certificate and	1	10	0
2nd do.	1	10	0
12. Best Southdown Ram, Certificate and	1	10	0
2nd do.	1	10	0
13. Best 3 Southdown Ewes, Certificate and	1	10	0
2nd do.	1	10	0
14. Best Merino and Saxon Ram, Certificate and	1	10	0
2nd do.	1	10	0
15. Best 3 Merino or Saxon Ewes, Certificate and	1	10	0
2nd do.	1	10	0
16. Best Boar, Certificate and	1	0	0
2nd do.	1	0	0
17. Best Breeding Sow, Certificate and	1	10	0
2nd do.	1	0	0

CLASS 10.—FOREIGN IMPLEMENTS.

SECTION.			
1 Best Plough, Certificate, and	1	0	0
2. Best Sub-Soil Plough, Certificate, and	1	0	0
3. Best pair of Harrows,	1	0	0
4. Best Fanning Mill Certificate, and	1	0	0
5. Best Horse-Power Tresher, Certificate, and	1	0	0
6. Best Separator, Certificate, and	2	10	0
7. Best Drill or Barrow, Certificate, and	1	0	0
8. Best Straw Cutter,	1	0	0
9. Best Smut Machine,	1	0	0
10. Best Portable Grist Mill, Certificate, and	2	10	0
11. Best Grain Crusher,	1	10	0
12. Best Machine for Slicing for Stock,	1	0	0
13. Best Corn and Cob Crusher.	1	0	0
14. Best Clover Machine, Certificate, and	2	0	0
15. Best Reaping Machine, Certificate and	2	10	0
16. Best Cultivator, Certificate, and	1	5	0
17. Best Assortment of Agricultural Implements and Edged Tools, Certificate, and	5	0	0

GENERAL REGULATIONS.

1. Members of the Association may exhibit free of entry-money two lots, under any section.

2. Members shall pay on each lot exceeding two in one Section, and non-Members on all lots, 1s. 3d.

3. Stock must be the property and in possession of the Exhibitor from the date of the Certificate. In all cases the pedigree of thorough bred Cattle or Horses must be stated in the Certificate.

4. Cows must have produced in 1854, and be in milk at the time of the Show.

5. Evidence may be required that Stallions and Bulls have had produce.

6. Aged Ewes must rear Lambs in 1854.

7. The Premiums awarded will be paid on and after the 1st. October. Premiums not applied for by 31st December will be forfeited.

8. Any deception on the part of a Competitor will disqualify him.

9. An animal which has already gained a first Premium at a Provincial Exhibition, cannot again compete in the same class. No competitor can take more than one Prize in each Section.

10. In all cases where any difficulty may arise in regard to Competition, Awarding Premiums, or upon any other subject connected with the Exhibition the Council and Officers of the Association shall decide, and their decision shall be final.

The Judges to meet at the Secretary's Office, on the ground, on Tuesday morning to breakfast, at 9 o'clock precisely, to make arrangements for entering upon their duties.

Judges are expected to report themselves on arrival, at the Secretary's Office on the ground.

CERTIFICATES OF ENTRY.

1. Each lot must be intimated by a Certificate of Entry, printed forms of which may be had on application to the Secretary, at the Office of the Association, in Montreal, and to J. R. Eckart, Esq., Secretary Local Committee, Quebec.

2. All Entries must be completed and lodged with the Secretary not later than Thursday, 10th August.

3. No Certificate of Entry will be received without the entrance money.

4. Admission Orders to the Show-Yard will be given when the Certicates of Entry are lodged

PLACING AND JUDGING IMPLEMENTS AND INDUSTRIAL PRODUCTS.

1. The Show Ground will be open for the reception of Implements on Monday the 11th September, and all articles must be placed by 12 o'clock on Tuesday 12th. No article will be admitted without an Admission Order, and the different articles must be placed in their respective sections, according to the Classification in the Premium List.

2. A separate space will be reserved for Exhibitors who are desirous of shewing a general collection. A moderate charge will be made according to the ground required, the extent of which must be intimated to the Secretary on or before 10th August. No Exhibitor will be entitled to this privilege who is not a competitor.

3. The necessary articles for trying machines must be provided by Exhibitors.

4. The Judges will commence their inspection at 12 o'clock on the 12th of September, (Tuesday,) and they will resume it at 7, A. M., on the following morning.

5. A trial of Implements will take place during the forenoon of Wednesday the 13th, and at one o'clock the yard will be open to the public.

6. All articles entered must remain on the ground till Friday, 15th.

PLACING AND JUDGING STOCK.

1. Stock must be brought to the Show Ground between 6 and 9 o'clock on Wednesday (13th) morning. No lot will be admitted without an admission order. At 0 o'clock the ground will be cleared of all persons except the Judges.

2. One Servant will be admitted with each lot and he must remain strictly in charge of it during the Show.

3. No Neat Cattle will be allowed to enter the Show Ground without being secured in a proper manner by either chain, strap or cord.

4. Bulls must be secured by a ring or screw in the nose with a chain or rope attached.

5. The competing Stock will be distinguished by numbers, and the owner's name must not be mentioned till the Premiums are awarded.

6. The Judges will commence their inspection at 12 o'clock. They will decide without inquiry as to names of parties or places and with reference merely to the numbers which distinguish the animals. They will have regard to the Symmetry, Early maturity, Purity, Size and General Qualities characteristic of the different breeds.

7. In no case shall a Premium be awarded unless the Judges deem the animal to have sufficient merit, more especially if there be only one lot in the section.

8. A Member of the Committee will attend each Section of the Judges. It will be his duty to see that no obstruction is offered to them, to communicate between them and the Secretary, to complete their reports and to ticket the Prize Animals. None of the Tickets so placed shall be removed. The ground will be open to the public at 8 o'clock on Thursday morning 14th.

9. No Stock to be removed from the Ground till 6 o'clock on the evening of Thursday 14th.

EXHIBITION OF PRIZE STOCK AND IMPLEMENTS.

Prize Stock and Implements must be on the Ground by 9 o'clock on Friday 15th under penalty of forfeiting Premiums.

AUCTION.

An Auction of Stocks and Implements will take place on the 15th at one o'clock. Exhibitors should state with their entries whether Stock is to be exposed to sale and furnish particulars of Pedigree to enable the Secretary to give the Auctioneer the information requisite for his Catalogue of Sale.

N.B.—These Regulations will be strictly adhered to.

By Order of the Board,

WM EVANS, *Secretary.*

Montreal, 24th May, 1854.

N.B.—Part II. will be published shortly.

Montreal: Printed and Published by H. Ramsay, No. 21, St. François Xavier Street.

The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

VOL. II, No. 3, MONTREAL, JULY, 1854. POSTAGE FREE. PRICE 2s. PER ANNUM, IN ADVANCE.

The Farmer's Journal.

We publish an extra half sheet of the present number, so as to be able to lay part 2 of the Prize List of the Provincial Exhibition before our readers. We are happy to learn, that so far the arrangements at Quebec have proceeded in a most satisfactory manner, and the expectation is confidently entertained, that the Show will be in every respect worthy of the Province.

We hope to be able in our next to lay an account of all the arrangements before our readers.

There has been a slight decline in the prices of bread stuffs at home, which, of course, was reflected on this side of the Atlantic. These periodical fluctuations, however, appeared to us to be nothing, arising from merely speculative causes, and got up principally for the benefit of the Brokers.

The highest price for the best wheat is quoted, June 12, which is the date of the latest advices that have arrived, at 89s. The average for the last six weeks was 79s 2d against 44s 1d last year.

The highest average in modern times was 113s, which occurred in the year 1800. The distress then from dearness of food was most intense. But it must be observed that that was reckoned in a depreciated currency, for at that time the pound note of the Bank of England having been made a legal tender, was only worth fifteen shillings. Twenty-five per cent must, therefore, be deducted from the gross sum, leaving rather less than 85s. Another cause must also be taken into consideration, at that time averages were entirely taken on the London deliveries. Those are notoriously of a very high quality, the country adjacent to London producing the best wheat in the kingdom, and it is of no use for the more distant counties to send any to the London markets, but the best that they have. Sir Robert Peel obtained the averages to be taken so as to include the whole of the country markets, and it was computed that this further brought the averages down five shillings a quarter below the old London averages, which for more than a century had regulated the duties. With this additional deduction, therefore, it will be seen that the prices of the famine year 1800, in which, from different causes, there was foreign importation, the prices very little exceeded those of 1854, during which we have had immense importations from all parts of the world; nevertheless, the suffering was much more intense in the former year, the rates of wages having been so high this, that there does not appear to be any suffering at all except what some workmen brought on themselves by strikes.

This is a subject which is not particularly interesting in Lower Canada, with the exception of a few holders in the cities who have access to the best information. Our own production of flour certainly does not exceed our wants, and many people think fall short of them. It is only, therefore, the limited extent to which we are importers that the topic is interesting to the country.

The present spring, succeeding a winter rather late in setting in, but still very long and very cold, has not on the whole been a propitious one. The temperature in a general way has been low, with considerable fluctuations. In some parts of this extensive Province, there are complaints of want of rain, of which in no part have we had more than a sparing allowance. From some Parishes, we hear complaints, that there are severe and prejudicial night frosts. It is to be regretted that the different Agricultural Societies, or the individual members do not furnish us with periodical information upon this topic so interesting them. It is only by an extended basis of operation that the truth can be arrived at. For the same reason it would be gratifying to us and interesting to themselves if they would furnish us with periodical statements of the condition, progress and result of the crops? At present all we can say with any confidence is, that the grass crops in this neighbourhood look remarkably well, and the garden cultivation has been successful.

We copy to day from the *Agricultural Journal* of Upper Canada, a paper on the very interesting subject of offering premiums for Horticulture or what in England are called Cottage Gardens.

We entirely agree with the Revd. Mr. Bell that there ought not to be a limit to the *minimum* size of the garden, or at least that the limit ought to be very low. But we also think there ought to be a *maximum* limit, that the garden may not to be confused with the farm.

Canada, especially Lower Canada, is with the exception of a few wealthy persons who

do not cultivate from the motives which will actuate the farmer is in a most miserably backward state as respects gardening. The few gardens there are, are equally badly planted and cultivated. We are inclined to attribute this largely to the ease with which considerable tracts are obtained even by the poorest, and the preference which is given to the plough over the spade. Wherever gardening has flourished and the peasant prides himself on the neatness and productiveness of his little inclosure or *jardin pottager*, land is dear, and the annual rent of a plot of it, will be greater than the fee simple of one of the same size here, excepting in the immediate vicinity of what we here consider large towns. Being a valuable article and in many situations very difficult to obtain it is carefully attended to.

We cannot, therefore, think that except where market gardening can be carried on, on a pretty large scale it will ever be so profitable as good agriculture. But we fully agree with Mr. Bell as to its domestic and humanizing influences.

There is, however, one difficulty which Mr. Bell does not foresee, and that is, at what period of the year shall the prizes be distributed. We hear much of rotation of crops; but, a field only produces one crop in the year. The essence of good gardening is to produce a succession of crops. For instance a plot of one kind of vegetable may usually be followed by one of another kind. But overlooking that difficulty and supposing each garden to have only one crop in one season, who shall say what that crop ought to be? There are spring crops, there are mid-summer crops, there are autumn crops, and with good management, a succession of intermediate crops during the whole open season. To keep perpetual supervision of those is we fear impracticable, and yet without that it is impossible to do justice to the general merits of any gardener.

AGRICULTURAL SOCIETIES.

We publish in our present number several reports of the Local Agricultural Societies, with which we have been favoured. The accounts are generally highly satisfactory. The law seems for the most part to work well, though experience has suggested, as in other laws, some improvements. These will be found in the reports which we subjoin.

COUNTY OF VERCHERES, No. 2.—The Committee of the Society congratulates the members on having surmounted the difficulties which the novelty and complicity of the law embarrassed them with at first. The Committee have distributed a number of copies of the *Farmer's Journal* among the Schools in each parish, and to each subscriber a portion of clover seed, and other seeds of superior quality. The results have been very gratifying. The cultivation of root crops has been extensive, and the breeds of animals have been much improved. The exhibition wes very satisfactory, both as respected the articles exhibited and the attendance. They express their opinion of the necessity of education—and their gratitude for the increase of the grant, and the nomination of the Minister of Agriculture. They pay a compliment to Lord Elgin and the Honorable A. N. Morin, the Hon. James Leslie, and G. E. Cartier, Esq.. M.P.P. They recommend the establishment in schools of an elementary course of agriculture. They think the plan pursued in the Journal of giving a condensed history of the agriculture of the month is preferable to mere references to books, not always to be procured. They recommend the establishment of model Farms. Also the division of the grant to the different Societies of Agriculture within the same county, to be proportioned to the number of agriculturists, and not to all classes indiscriminately. They think that under the present system, the presence of a populous commercial village carries off an unjust share of the grant from the other sections of the same county, inhabited almost exclusively by farmers. They think there ought to be a law for the protection of the standing wood, which is subject to destructive fires from the carelessness of sportsmen.

They express their gratitude to Major Campbell for the offer of a liberal premium for the best treatise on agriculture. They observed that this is unprecedented, and they hope his example will be followed by others. The subscription was thirty-five *francs*, but the result is that it was too small to accomplish its object. It should not be left to an individual, but rather to a Society or to the government.

COUNTY OF QUEBEC.—We are obliged to abridge this report very much, but we believe that we have left nothing out of it, but what is of purely local interest.

COUNTY OF MONTREAL SOCIETY.—We gave the whole of this report in the journal of March last, the only additional being a few lines, containing a more full description of Mr. J. Bte. Lecour's mode of rotation of crops, which we here copy.

"With a view of encouraging French Canadian farmers to adopt a system of rotation, the Directors take the liberty of submitting the experience of a French Canadian farmer, Mr. J. Bte. Lecour, residing at St. Laurent, the most successful competitor for crops, this year. He say, my farm is situated at Cote de Verte, in the Parish of St. Laurent, and contains about one hundred and eighty arpents, I had this year about one-third of my arable land under grain crops, one-sixth under green crops, something more than one-sixth in hay, and rather less than one-third in pasture. I obtained the following premiums, to wit:—For potatoes, 3rd prize; mangol wurtzel, 1st prize; Indian corn, 3rd prize; and 2nd prize for the best laid down field of grass. The soil of my farm is of a dark grey loam, on a tolerably open subsoil. I have no under drains, but prepare my land in the ordinary way, using an English plough, and surface drains, the crops that preceded the potatoes and Indian corn were oats upon lea, that had been pastured, the manure used for the potatoes and Indian corn, was taken from the barn-yard, the quantity, seventeen single horse loads per arpent, laid on the stubble, and turned under a light furrow in the month of October, with seven or eight additional loads of manure to the arpent, for the corn, put on in the spring with the seed, which was planted in drills three feet apart, the potatoes were planted in drills thirty inches apart, and the seed laid ten inches distant in the row; the mangol wurtzel was sown upon a piece of old and rich grass land, without any manure, in drills, thirty inches from each other; the plants, twelve inches apart in the row, the after culture of these crops being performed with the plough and drill harrow.

My new laid down grass is upon land that was under crop last year, producing wheat and barley this year. All the seed used was grown on the farm except the mangol wurtzel seed used, which was purchased in Montreal, it was the long red sown the last week of May. Indian corn yellow Canadian, sown 20th May; potatoes, common red, sown the 10th of June. Mr. Lecour remarks, that he has followed the system laid down in a pamphlet, distributed by the Governor General, and that the instruction therein given has been of great service and advantage to him, and he believes, would be to all others, who would follow them."

REPORT OF THE QUEBEC AGRICULTURAL SOCIETY NO. 1.

The Board of Directors saw with regret that the practical farmers of the County took very little interest in the proceedings of the Society, very generally declined be-

coming Members; and feeling that the good will, and support of the working farmers must be more generally secured for the Society, if much good were to result from its labours, made every endeavour to enlist the interest of the farmers, and to increase the number of Members amongst that class of subscribers.

Members of your Board addressed the farmers at the different Parishes in the County, pointing out that the sole object of the Corporation was for their benefit, and that by persisting in not becoming Members of the Society, they were refusing to accept of the liberal donation made by the country for their advantage. The Board wrote circulars to the *Curés* of the different Parishes requesting these gentlemen to use their influence in the rural districts with the Members of their flocks, to induce the farmers to take more interest in the proceedings of the Society. And finally, to meet certain objections of the operative farmers, and to hold out greater encouragement to this class generally to join the Society and compete for its prizes, the Board passed a resolution, admitting all subscribers, to compete for the Society's diplomas; but excluding the gentlemen farmers from competing for the pecuniary prizes, which were reserved altogether for the working farmers. There are many enterprising and spirited gentlemen farmers in the County, who go to great expense in the introduction of *thorough bred stock*, and modern improvements in agriculture, perhaps as good stock, and as good cultivation can be found on some of the farms belonging to these gentlemen as in any part of Canada. In this way the farmers of the County have derived great benefit from their more wealthy and spirited neighbours, but as every rose has its thorn, this same highly bred stock, and improved cultivation has of course generally run off with the prizes, and some of the working farmers were consequently discouraged from becoming Members of the Society, and competitors for its prizes.

The Board are happy to think that its efforts to extend the benefits of the Society and to enlist the support of the operative farmers, have been moderately successful.

The Society has heretofore been supported by non *cultivateurs* say parties living in the city, and not by the farmers. The citizens subscribed liberally, and the Society has never wanted funds. In the first year of the series 1848, there were only 30 Members farmers, against 110 others, and at present the Society numbers only 44 farmers against 122 Members, merchants, professional gentlemen and other well wishers to agriculture.

The Autumn Show was held at the usual period, but the Provincial Exhibition, taking place at Montreal, interfered with the Show, as nearly all the choice stock in the County went up to Montreal.

Your Board finds it necessary to say, that it had been the practice of the Society to give prizes for vegetables, grain, &c., at the fall exhibitions, but your Board being of opinion, that this mode was unsatisfactory, in as much as, the quantity grown was unknown, as well as the manner of cultivation, and it had come to the knowledge of the Board that parties more eager to catch prizes than to advance the legitimate objects of the society, had actually resorted to the mean attempts of defrauding the Society by mixing grain, representing garden to be farm crops, &c., for which, and other reasons, the Board considered the fairest competition, and the real interests of the Society would be to hold an exhibition for growing crops.

The Secretary of the Board of Agriculture has addressed the following important communication to Mr. Trudelle, the Secretary of the Society: stating, "That in conformity with the practice which exists in Upper Canada, the Secretary be instructed to request the Agricultural Societies for the County of Quebec, to merge their funds for the ensuing year into those of the Provincial Agricultural Exhibition, to held at Quebec on the 19th, 20th, 21st and 22nd of September next, 1854; on the understanding that the members of these Societies shall be members of the Provincial Association for that year, and be entitled to all the privileges as such. I beg to state further, that it is invariably the practice in Upper Canada for the Agricultural Societies of the County in which the annual exhibition takes place, to give all their funds towards its support, and in many instances, other Counties also contribute towards the same object.

AGRICULTURAL SOCIETY, COUNTY OF BEAUHARNOIS.

Report of the Transactions, &c., of the Society for the past year, presented, read and approved of at the Annual Meeting, held on the 23rd February, 1854.

The Society was reorganized under the act 16 Victoria, cap. 18, on the 23rd of February last, and it now devolves on the Officers and Directors to report on their proceedings for the past year.

From various untoward circumstances and delay in the transmission of the Subscription List, it was late in the season before the necessary documents could be forwarded to the Board of Agriculture to enable them to obtain their share of the Legislative grant and warrant them to proceed to business. They are happy to state however, that the Subscription List, through the liberality of the seignior of Beauharnois, (he having contributed about two-fifths of the whole amount), was sufficiently large to enable them to receive the maximum grant of £250; and, it may be noticed here, that their Society is one of the few in Lower Canada that have attained that enviable position.

The account of receipt and expenditure shows how the funds have been disposed of.

At a meeting held on the 9th August, it was determined to have a Cattle Show at Durham, on the 22nd of September; and, seeing the absolute necessity of renewing it, to appropriate a portion of the funds for the importation of seed wheat from the Black Sea. The President corresponded with and had interviews with several gentlemen on the subject of importing wheat, but the uncertainty of procuring it in time for the spring sowing, by the St. Lawrence, and the unwillingness of parties to import, on account of the then believed impending difficulties in Europe, rendered it impossible to negotiate with any person for the next season. Means have however been taken to procure ample information on this matter for another season, through a correspondent at Odessa, which will be duly communicated.

The Show at Durham was well attended, and the concourse of visitors unusually great. The competition was spirited, and the horses, sheep, young stock and pigs showed much improvement. Dairy produce was of excellent quality, though deficient in quantity. Domestic manufactures were good and some very creditable specimens of improved agricultural implements were exhibited.

The additional subscription from the seignior was given by him, contingent on the Society's having a Show in one of the Canadian Parishes for Canadian Farmers only; and this took place on the 13th of October. Owing to the unfavorable weather there was a very limited attendance, and, with the exception of a few tolerably good horses and some domestic manufactures was, on the whole, not satisfactory.

A Ploughing Match took place on Mr. Whyte's farm, near Huntingdon, on the 27th October, and although the weather was very unpropitious, eleven ploughs were on the field and did good work. The Directors have much pleasure in noticing a marked improvment in this department.

The Winter Show for stallions, bulls, fat cattle, and sheep, and seed, grain was held this day at Huntingdon; but owing to the state of the weather and bad roads, the attendance was not large. The Judges,

however, expressed their satisfaction with the samples of grain exhibited; and stated that the few fat cattle and sheep entered were in capital order. It is recommended that the next Show be held in Hemmingford or Russelltown.

The Society has subscribed for fifty copies of the *Farmer's Journal* which the Officers and Directors have undertaken to circulate, and hope thereby to disseminate much valuable agricultural information throughout the County.

Not being able to obtain an importation of seed wheat from the Black Sea, or its neighbourhood, the Directors have determined to appropriate the balance of the Society's funds, amounting to seventy pounds, currency, for the purchase of wheat of an early description, the growth of Upper Canada and of Massachussetts, or one of the New England States, and are now negotiating for the delivery of grain of that description in the spring—an eminent house in Montreal having undertaken to furnish samples and to state conditions, in a short time.

An Agricultural Society has been in operation in this County for the last twenty-five years, and the Directors have no hesitation in stating, with much satisfaction, that its labours have encouraged the farmer and acted as a general stimulus to agricultural improvement in every department, which will continue and extend with the increasing resources of the husbandman; indeed, they venture to assert, that the present agricultural position of their County is not inferior to that of any other County in the eastern part of the Province. They have deliberately come to the conclusion that the funds of the Society should now, in a great measure, for the future, be devoted to the purchase and importation of seed grain and seed, animals of improved breeds—to the encouragement of improved agricultural machinery and implements— to premiums for well cultivated farms and green crops and the scientific application of prepared manures.

The Directors express their conviction that when the Board of Agriculture shall be fully in operation and its objects carried out by the active co-operation of the County Societies, the agriculture of the Province will be greatly improved, and carried on to a greater extent and in a more scientific and profitable manner.

(Signed), J. KEITH, *President.*
R. H. NORVAL, *Secy.-Treas*

Beauharnois, 23rd Feb. 1854.

DRUMMOND AGRICULTURAL SOCIETY.

Report made at the General Meeting of the Agricultural Society for the County of Drummond. February, 1854.

The first year of the Agricultural Society under the Act 16 Vic. Cap. 18. having closed, it becomes our duty to make a full and detailed report of its proceedings. It may not, however, be opposed to the spirit of the required report to allude to the existance and proceedings of our County Agricultural Society, before its re-formation under the present Act.

The Agricultural Society of this County was formed in 1841; and, under varied fortunes,—as to support from the farmers,—it has steadily proceeded in its work—the improvement of Agriculture by the introduction of stock, grain, and implements of improved constructions.

A difference of opinion exists, and no doubt will continue to exist with our farmers as to the most desirable breed of cattle to be introduced. Those chosen for the purpose at the first institution of the Society were Ayrshires—and subsequently the short horn or Durham, of which breeds the Society brought into the County, six bulls, necessarily producing a numerous cross-breed progeny. Opinions differ as to these crosses being adapted to the climate, and the *feeding* our farmers can afford to give. It is not intended in this report to discuss this subject; but it is only fair to say, that if ill success has attended some farmers,—others, not better able *in means*, or in preparation for feeding, have been successful in raising the stock; and where the thorough breed has been obtained—and even where the cross breed has been attended to with care, advanced prices have been demanded and obtained for the stock.

As regards the sheep brought in by the Society—(the improved Leicester breed)—no diversity of opinion appears to exist, and the improvement thus obtained is acknowledged by all:—several flocks of excellent Sheep are now in the County.

Of grain, several samples of good wheat—and a considerable quantity of timothy and clover, besides turnips and other seeds, were obtained by the Society, for its members. An attempt to introduce foreign wheat (Dantzic Spring wheat) proved a failure, and may causes some hesitation in again attempting it.

The Society also obtained for its Members a variety of Agricultural Implements, of improved constructions over those in general use, aiding no doubt materially to an improved state of Agriculture. This assistance to the Members of the Society, can no longer be afforded under the provisions of the new act.

Poultry also shared in the improvement sought after by the Society—the parties who attended to this branch of the Farm give a favorable account of their success.

Swine derived the least benefit from the Society, for through the enterprise of one of our body, to whom is due the position of our leading Farmer, the breed of Swine in the County can scarcely be surpassed—as a proof, it took the 1st prize, for Boar, and Sow, at the Provincial Exhibition for 1853.

Although the Society from its formation thus attended to the introduction of all that could improve the Agriculture of the County—it also applied its funds, not only in Premiums for Stock, grain and domestic manufactures, but to the establishment of a permanent place for its meetings—the Hall in which we are now assembled, would be no mean object, even in a larger place than our County Village—it afforded accommodation for many years to the County and District Shows and the conveniences around of pens, yard &c., justly entitled this County to the praise of conducting its exhibitions to the satisfaction both of the Judges, and exhibitors. In the erection of so spacious a building as the Agricultural Hall, the Society derived the benefit of the liberal aid of Mr. Watts, for several years President of the Society, for, though the funds of the Society eventually made all payments upon it, the necessary outlay was at first met by Mr. Watts.

Having endeavoured to trace the proceedings of the Society from its foundation in 1841 to its re-organization in 1853; it may not be out of place to give you the value of the property of which it was possessed, and the sums of money distributed to its Members under the various heads.

The real property of the Society (the Agricultural Hall, its ground, fences, &c.); may be considered worth,.....	£350	0	0
Furniture, &c.,.....	25	0	0
Stock now in possession (the Bull Comet).....	75	0	0

Making the value of the property of the Society at the date of its dissolution. ...	450	0	0
besides which the Society brought into the County and distributed to its Members, two Bulls of the Ayrshire, three of the Durham breed at a cost of	150	0	0
4 Heifers, Durham breed..	102	0	0
8 Rams, Leicester do...	32	0	0
14 Ewes, do do...	28	0	0
Grain and Seeds, ...	53	0	0
Implements, ...	232	0	0
Poultry, Bees, &c., ...	5	0	0
Agricultural Publication ...	45	0	0
Premiums for Stock, Grain, Domestic Manufactures, Implements and Ploughing	601	0	0

Having sketched the working of the Society under the former acts, the Board will now fulfil the requirement of the 6th Sec. of the present act by detailing its proceedings during the past year.

Appendix No. 1, contains the list of the names of all the Members of the Society, with the amount paid by each set opposite his name, also the premium or premiums obtained, and the name of the animal or article in respect of which such premium was given.

Appendix No. 2, constains a detailed statement of the receipts and disbursements of the Society during the year by which it is shown that after paying the debt of the former Society of £45 4 8½—(for which has been regularly deeded over to this Society the real and other property possessed by the Society under its old form) a balance will remain of £39 17 1, and, taking out the sums more particularly connected with this report,

There has been given in premiums,.....	£79	14	6
Do do purchase of stock,	16	5	0
Do do Grain and Seeds,	51	2	6
Do do Poultry,.....	5	2	6
Do do Fruit Trees.....	18	17	3

The Board made a separate Premium List for the French Canadians as they hitherto witheld joining the County Society from an inabil ty to compete with farmers holding improved stock. It will rest with the new Board to continue the plan or not.

Premiums were also given for Standing Crops—it was a trial and its seccess did not equal expectation, but future Boards of Directors may possibly so arrange the scheme as to bring into competition a greater number of farmers. One object sought for in the examining of Standing Crops, was to obtain the opinion of the Judges sent into the several townships, as to the progressive improvement of farming in the County. This entirely failed, as the columns in the written report appropriated to such remarks was left blank, the Board is therefore without the necessary data on which to introduce that subject into this report. One remark however can be made—which will be received *for as much as it is worth!*—that a trial of Upper Canada Spring Wheat in the past year suffered more from rust than the *immediately* surrounding crops from home grown seed.

Fruit trees were largely introduced by Members the past year. An orchard is a necessary addition to a farm and the facility now afforded of obtaining the best description of trees ought not to be lost of sight by farmers.

The Board also commenced the establishment of a Library in one of the wings of the Agricultural Hall. It will require the fostering care of the future Board of Directors to bring it into a state to insure the diffusion of instruction and information to the Members of the Society and thus to encourage good farming, and a better taste in the arrangement of gardens, orchards and houses all much needed, and as new farm houses are every year being erected by thriving and spirited individuals, the introduction of good works into the Library may prove effectual in inducing a better and more ornamental structure without increasing the cost than the description of house usually erected.

The Board has also the satisfaction of stating that five Rams and two Ewes of the Leicester breed of sheep selected from a choice flock, the property of a gentleman in England, have been ordered and will reach us this year.

The Officers and Board of Directors of the Society having now performed their duty for the period for which they were elected, resign their seats, and the general meeting of the Members now assembled have to proceed to the election of Officers and Members of the Board for the current year.

ED. COX, *President.*
R. MILLAR, *Secy.-Treas.*

Drummondville Agricultural Hall, Feb. 6th, 1854.

MEGANTIC AGRICULTURAL SOCIETY.

Report of the President of the County of Megantic Agricultural Society, No. 1. April 2nd, 1854.

GENTLEMEN.—In transmitting to you the accompanying statement of the transactions of the Megantic Agricultural Society, No. 1, as President of the said Society I take the liberty of making a few desultory remarks on the state of agriculture and its prospects in this Township, for our operations are confined wholely to it, much I conceive to the detriment of the county generally. Not that I would seem to exalt the talent of this Society above all the county, but it cannot be denied that the agriculturists, as a whole, are superior to the rest of the county, as well as the farm stock of every description, so that if this township were brought into competition with the County, the results would and could not be otherwise than beneficial.

It is, however, encouraging to be able to report that there still continues to be an increasing interest in the efforts of this Society, and this arises mainly from the fact that the Directors of this Society, under its present as well as its original form, have ever had solely in view the agricultural interest, of the country at heart, and acted upon; hence it has told upon the agricultural community; and there is yearly a marked improvement in cattle, sheep as well as horses, also in dairy produce, for which this section of country can fearlessly compete with any part of Lower Canada. Agricultural implements of an improved description have been largely introduced into this township. Our system of agriculture, I am happy to state, is looking up. A larger amount of green crop is yearly coming in, and our farmers begin to see that without this important item of agriculture cattle cannot be profitably fattened for market, nor yet store stock profitably wintered, so that in retrospecting the past we have much to encourage for the future.

It is subject of encourgement to those who, from the organization of this society, have laboured assiduously in this good cause, to know that their labours have not been in vain, and trust that the foundation has been laid on which the future may erect a superstructure equally to beautify and improve this section of the country.

But still we have many difficulties to cope with, yet none, I trust, but what a steady perseverance will eventually overcome—difficulties common to all new countries and

settlements, which stout arms and courageous hearts have overcome elsewhere, and the same will overcome here.

Yet there is a feature in our agricultural developement, (referred to above,) which I have cause to fear will operate detrimentally rather than otherwise, (as contemplated,) and that is the unnecessary multiplication of Agricultural Societies in a county, as has been done in this. Two Societies would have been ample for the convenience and interests of this county. This would have brought the backward parts of the county, which are the least advanced or improved in cattle, &c., &c., into competition with the more improved localities, by this means inducing not only a desire but a determination to be able to compete on fair grounds, and as a matter of course improve their cattle, sheep &c., as well as implements, whereas now those localities having separate societies are giving premiums for the best of a stock of cattle which, to say the least of, are of a very inferior description, and by this means the public monies are paid away (worse than uselessly,) to perpetuate a race of cattle in the county which should rather be banished as speedily as possible.

There exists also another great difficulty, in connexion with our agricultural improvement, which I think deserves the serious consideration of those interested in the agricultural prosperity of Canada, and that is the diffusion of agricultural information in a printed form through the country. Generally our farmers are not reading men, and I have met, even here, a resolute resistance against the introduction of Agricultural Treatises as premiums for competition in our prize lists. Yet something must be done, and our hopes are on the rising generation. *Les veux ont la tête trop dure.* They must be taught the benefits of such a course as far as practicable, and one of the very first steps to this very desirable state of things would be to introduce into our Elementary Schools a course of agricultural study suited to the capacities of our youth, as recommended in the reports of the "*County Society, No. 2, for Vercheres,*" as also the carrying out the other suggestion of so much utility mentioned in the said reports, and as I find them stated there, shall not occupy your time by particularising at present.

There is also another subject in connexion with our agriculture which I fear is too much overlooked, and that is the manufacture of maple sugar, a large amount is yearly expended in this, as well as other parts of Canada, for sugar, which must all be paid for in cash, which, as a matter of course, must be taken from some other part of our farm produce, a reprehensible and needless drainage on our income as agriculturists, when the condiment can be manufactured on our own lands, and that, not only to the extent of needful consumption, but also for exportation. Our country is covered to a large extent with the sugar maple tree, and all that is needed is energy and industry to meet our demands for this article, and yet our farmers allow this valuable part of the season to pass unimproved, and no other work of importance done in its stead. I would, therefore, suggest to your Honorable Board the propriety of calling the atention of our agricultural population to this important subject. I am happy to be able to state that these things more than ever occupy the attention of our agriculturists, and I anticipate for the future a better state of things.

If these things are of importance to us, (and they undoubtedly are,) there are other subjects which have their bearing on our interest, probably too numerous to mention, but there are two which I think deserve a passing notice, the first is the necessity of township municipalities, the want of which is felt in this county to an alarming extent, and if not speedily obtained the roads through this county will become utterly impassible, so much so are they now that our agricultural interests are greatly retarded and injured thereby, and if the subject lies within the province of the duties of your Honorable Board, I would respectfully suggest the pressing of the subject in the proper quarter.

The second of these is the want of a road—it is true, "we have a road, but what sort of a Road is it?" Why, one which cuts us off from all communication with the improved and improving portion of Lower Canada. Our roads are the same as all the roads in the Districts of Quebec, on which trainneaux and carrioles only can be driven over. The antiquated inconvenience of which cannot but be apparent to every one who travels over them, the difficulties of which, if enumerated, would almost fill a volume. In a word, they are ridiculed by our neighbours of the Eastern Townships, and the United States, and are designated, "rabbit tracts." In fact they are a disgrace to any country, and would be tolerated in no country but *Lower Canada*. I feel satisfied, gentlemen, that you have not only seen, but felt the inconvenience of such roads, and you cannot but be aware of the great necessity of our possessing the double road as used in all other parts of Canada, except the District of Quebec, (to which it it is a shame and disgrace,) and that you will use yours endeavours, as a "Board of Agriculture," to have this disgrace wiped away from amongst us, by representing to the Head of your Department the necessity of pressing upon the Executive Department of this Province, to allowing the "*Sleigh Ordinance*" to come into operation, which would be the sole means at present of opening a winter communication for the Eastern Townships through this county to the City of Quebec, as well as to advance the agricultural interests of this county especially. The inhabitants of this, as well as of every other county in Lower Canada, are looking up to the Board of Agriculture, as well as to the responsible Head of the "*Department,*" and I believe they will not be deceived for a representation of their grievances to the Executive, as well for the removal of them, as to obtain ameliorations in their stead, and none more needed in this county than the means of locomotion.

Many and fearful have been the difficulties which the settlers have had to endure in settling this County, but a brighter prospect is dawning upon our agricultural horizon, and we feel there is *hope*. The more especially so, as we feel satisfied from the character of the gentlemen forming the Board of Agriculture as well as the known abilities of the gentleman at the head of the Agricultural Department that every thing will be done that can consistently be done for the prosperity of agriculture in Canada aud our prayer is that its best hopes may be realised, and that that Power which directs and superintends all the movements of men may crown the undertaking so auspiciously commenced with its blessings ana its favor.

The whole nevertheless respectfully submitted,

JOHN R. LAMBLY,
President of M. A. S.

Leeds, March 29th, 1854.

BEEF CATTLE.—The prices of beef cattle having declined in all the the great Central markets of the Atlantic seaboard—at New York, Philadelphia, Baltimore and

Cambridge. Here, the fall within a week has been from $1 to $2 per hundred lbs, at Baltimore 50c per hundred lbs, and at Cambridge 25c. At several of the markets, the supply is larger than the demand. Judging from accounts in Western papers, there is no reason justifying the exorbitant rates that have prevailed this spring. The Indianapolis *Sentinel* of the 14th inst., says —"Good cattle are selling in Indiana and Illinois to drovers at $7,50 to $8,50 per 100 lbs. nett, $4,26 live weight." Add only a reasonable amount to defray the cost of transportation East, and the burdens on consumers will be considerably diminished. All over the country, almost, the season has been remarkably fine for grass. The feed has been excellent and abundant, and the hay crop is heavy and good. In this part of the country the number of cattle visible from the railroad is very large, and the calves seem to be raised for the benefit of future beef markets. The longer present prices are kept up, the more certain and greater will be the reaction.—*N. Y. Journal of Commerce.*

PREMIUMS FOR FARMS AND GARDENS IN THE COUNTY OF RUSSELL.

We have received the following communications from C. P. Treadwell, Esq., President of the Provincial Agricultural Association, on the subject of premiums for the best cultivated Farms and Gardens in the County of Russell. The Board of Agriculture, at its recent meeting, expressed its approval of the plan, and it is much to be desired that a similar movement should be made either by Societies or influential and patriotic individuals in each of our settled Counties. The encouragement of the cultivation of the various kinds of garden crops is of no small importance, and would tend in connection with the culture of flowers to improve the taste and increase the comforts of many a household. We trust that, as the object is a good one, and most creditable to the projector, it will not be lost sight of in other quarters, but that many will be induced through the force of this example to go and do likewise.

Mr. Treadwell proposes to give the sum of £25 for the purpose, viz.,—£5 to each of the four Township Societies of the County for the best cultivated farm in each locality; and likewise, £5 for the best managed garden within the jurisdiction of each of the four Societies. As the great object of these premiums is the encouragement of farmers and their families in those important arts on which the existence and happiness of nations so essentially depend, we again express our best wishes for the success of the principle in this particular application.—*Toronto Paper.*

L'Orignal, April 13, 1854.

Dear Sir,—I have great pleasure in enclosing for insertion in the *Agriculturist* a letter recently received from the Rev. Andrew Bell, a scientific and practical gardener, to whom I mentioned the circumstance of my offering premiums on farms and gardens in our county.

His opinion should be adopted in preference to mine, as I neither claim practical nor theoretical knowledge; but I feel an anxious desire to advance that branch of domestic economy throughout the Province, and especially in our own county.

I am, my dear Sir,
Your most obt. servt.,
C. P. Treadwell.

Geo. Buckland, Esq.,
&c., &c., &c.,
Toronto.

L'Original, April 13, 1854.

My Dear Mr. Treadwell.—When you called on me to-day, you mentioned a proposal which had been made to offer premiums for the best gardens in Townships or Counties, and wished me to give you some suggestions, in writing, as to the conditions on which those prizes should be awarded. Having my mind occupied and perplexed about some other matters, I really cannot give the matter that consideration I could wish. I shall try, however, to throw out two or three hints.

I think the quantity of land you propose as a minimum in order to get a prize—being nearly half an acre—is entirely too much. Very few families in the whole country, even amongst the wealthy, have that amount enclosed and under cultivation as a garden; and, moreover, no family could do such an amount of land that justice, and give it that high cultivation, which a garden requires, except among the wealthy, who are able to keep professional gardeners, and if I understand you aright, that is not exactly the class you wish to encourage and induce to cultivate gardens. I think that about the fifth of an acre, two square chains would be enough; and further, I think this might be left indefinite. It might very safely be included under the head shortly to be mentioned.

If I mistake not, you also spoke of the greater variety of crops, as another condition. I scarcely think that would answer the end in view. It might be no difficult matter to procure such a variety of seeds and roots that a garden might present a most wonderful display in this respect; a *little* of this and a *little* of that, to the extent of a hundred or more varieties, but I am afraid that the comfort of a family would be *very little* promoted thereby. The great thing that ought to be aimed at, in my estimation, is, to encourage every family in the land to cultivate a garden of *such extent as may be managed by themselves*, or with as little hired labour as possible merely for the rougher and more laborious operations,—a *useful* and *tasteful* garden, one that would yield both *profit* and *pleasure* to a family, instead of being a piece of expensive and useless ostentation. To come up to my idea of the thing, the garden should contain *such kinds of vegetables*—in *such quantity*—in *such variety*, and of such *excellence* and *perfection*, and accompanied by *such taste*, in the laying out and the ornamentation of it with flowers, as would not only contribute to *the support of a family*, but, all things considered, would, in the estimation of the judges, as sensible and discreet men, minister the most to the health, the comfort, the enjoyment and the pleasure of a family all the year round.

Another ground of awarding the prize might be the superior excellence of the garden produce of whatever kind—large, healthy, thriving, &c., &c.; as indicating the best cultivation, and giving promise of the largest amount of produce for the least extent of ground.

Other grounds might be the care bestowed on the garden, the order and neatness in which it was kept, its entire freedom from weeds, &c., &c.

And last but not least the *taste* displayed in laying out a garden, arranging the crops and ornamenting the garden with flowers. To bring the whole to a point: I would advise leaving out the extent of the garden. That I think might be safely included among the "*All things considered*" which must still be left to the discretion of the judges.

The prize might go to the garden which —I. Contained such *kind of vegetables* in *such quantity*—and in such *variety*; and of such *excellence* as would minister the most towards the *support, the wealth*, the comfort, the *enjoyment* and the pleasure of a family all *the year round*, and which, II. Contained the *best crops of their* kind, and III. Showed the *greatest freedom from weeds*, the greatest care and neatness,—and IV. displayed the greatest amount of *good taste* in laying out and the ornamenting of it with flowers.

I hold that the cultivation of a pure, refined, elevated taste in a family circle by the floral decoration of their garden done by themselves, and studied and watched by them, is an element and by no means the smallest one in the usefulness of the garden.

And now having made such suggestions as occur to me at the moment, in regard to what should constitute the best garden, to which a prize is to be awarded, I would make another suggestion, that something more is needed, than offering a trifling prize of a few dollars for the best garden, in order to induce a large number of the people to cultivate such gardens as will conduce substantially to the support, health, comfort, &c., of their families. Their ignorance and their prejudices must be removed in regard to the usefulness of it, and the time, labour, and expence necessary. They must be instructed in short as to how it is to be done, and done to the best advantage.

Offer them a good prize, as large as any that have been offered for other essays, for

a good essay on gardening. I do not mean a mere mechanical thing, such as is printed on seed papers and in almanacs to guide a novice, as to the breadth of drills and the times of sowing; but a deeper and more philosophical thing, showing in what a good garden consists and how it may be formed, the extent of it, how it should lie, the kind of soil, how deep, how drained, how enclosed, how laid out, how arranged, how manured, how cultivated, the different kinds of crops, the quantity and proportion of each, the rotation, and in these days of science, it should have a smack of Agricultural Chemistry, the science of fitting the elements of the soil to the requirements of the crop. If such an essay were what I think it should be, it would be almost every word of it just as applicable to Agriculture on a large scale by the farmer as to Agriculture on a small scale by the gardener.

Yours truly,
ANDREW BELL.

C. P. Treadwell, Esq.

POTATO CULTIVATION.

The following Communication, addressed to Lord Palmerston from the British Consul at Fiume, Illyria, is interesting, and may be of value to farmers. It may be that the thorough drying of cuttings for seed in the autumn, and keeping them over winter to plant in spring, may have a beneficial influence on the constitution of the plant:—

"British Consulate at Fiume,
Sept. 30, 1853.

"My Lord—I humbly beg leave to address your lordship, at the request of a Mr. A. Frangi, a Tuscan gentlemen, who is very desirous to lay before your lordship a sample of potatoes, this year's produce, on an experiment of his made from cuttings of diseased ones. As they prove to be of excellent quality, it is of great utility and benefit to agricultural interests that his method adopted to preserve and reproduce a crop of this nourishing food be explained; and, by laying this specimen before your lordship, he trusts you will find an interest therein to call the attention of agriculturists to follow up the experiment, in order to successfully preserve to themselves the means of conserving the seed necessary to insure them a crop of fine farinaceous and almost equal-sized fruit, and at an early period of the year.—Mr. Frangi last year finding his stock of potatoes fast decaying from disease, resolved on drying them, and had them placed near to a retort on his chemical works, (for he had read in the papers that in Russia something of the kind had been done) and in a dried state he continued the consumption for his house use during the winter; and in the spring, finding a beginning of vegetation, he had them cut up and planted separately from other potatoes, but near thereto. The dried cuttings were rather backward in breaking the earth, after which there growth was manifestly more rapid and luxuriant than the other plants. They were precisely treated the same in hoeing and weeding, and on the 25th July were gathered, and produced an abundant and equal-sized potato. The other crop from the common cuttings did by no means produce the like, and have already given signs of decay as before; but not so the produce of the dried cuttings. The soil in which both sorts were planted is of a rather stiff, stony, clayish compost. The spr[illegible] was very damp, the summer, however, proved very dry, yet the verdure of the dried cuttings maintained their verdure, which faded and perished with the other kind. Mr. Frangi has forwarded a similar sample of the potatoes unto the Marquis Rodolfi, President of the Tuscan Agricultural Committee, for his information, and he begs your lordship will excuse the liberty he takes in sending his sample, for he trusts your lordship will find an interest in this his experiment, by which the produce of a fine healthy fruit is so far secured to man. He begs a repetition of his method may be made in Great Britain, and he confides as favorable a result will ensue as here; thereby conserving the means of procuring an abundant crop for the following years of this most nourishing plant, and must be of great interest to the population of the United Kingdom. I most respectfully beg to inform your lordship that the sample-box is on its passage home in the British schooner Sprightly, of London, John Paul master, bound to Gainsborough from this port, with a cargo of oak-staves, to be forwarded on arrival.

"I have the honor to be,
"My Lord,
"Your most obed't., humble serv't,
"CHARLES T. HILL,
"Vice-Consul."

The hop grows with great luxuriance in Lower Canada. We never knew the severest winters do it any mischief. It sows itself, and becomes a troublesome weed.

It is cultivated largely in Upper Canada, and partially here, particularly on the farm of J. Penner, Esq., of Lower Lachine. But we have very great doubts, that the best mode of raising the hop is by layers or roots. We believe the best is by seedlings, that is, distinct and perfect plants, of which any number may be obtained with perfect facility.

THE HOP AND ITS CULTURE.

THE Committee of the N. H. Agricultural Society, upon root and grass crops, report as follows as to the article of hops:

They award the first premium of $5 to Gen. William P. Riley, of Manchester. To William Riley of Hooksett, the 2d premium, a diploma.

The average price of hops per pound, for 48 years, is 12 4-5 cents.

The whole amount of hops grown in the United States for the year 1849, as computed in the census returns of 1850, is 3,467,514 pounds.

New-England raised.....	707,8,56 lbs.
New-York "	1,536,299 lbs.
	3,244,155 lbs.
Balance for other States, ...	223,359 lbs.

From the above table, it will also be seen that the price of hops during 48 years never has gone below five cents per pound, the actual cost of growing a pound of hops. Of what other agricultural product can the same be said, that is grown in New-England? Then, this very year, and at the time of writing this report, hops readily bring 45 cents per pound, giving the enormous profit of $450 per acre!

The hop, *lupulus humulas*, in botany, is a genus of plants, neither the male nor female flower of which has any corolla; the cup of the male flower is composed of five leaves; that of the female is made up of only a single leaf, very large, and of an oval figure; the seed is single, roundish, convered with a coat, and contained within the cup.

Mortimer reckons four kinds of hops; Ist, the wild garlic-hop. 2d, the long and square hop. 3d, the long white. And 4th, the oval hop. The first of these is not worth cultivating. The second is a good hop, but looking generally red toward the stalk, it will not fetch so good a price at the market. The long white hop is the most beautiful of all, and produces the greatest quantity; this kind and the oval will grow very well together. They delight in a deep, rich garden mould.

The hop sends its roots four or five yards deep, and for this reason it thrives best in that land where there is a good bottom below what is usually stirred, or manured, for agriculture. If the hop-land be wet, it must be up in high ridges, and drained, that the roots be not rotted or chilled.

New land is found to succeed better with hops than old.

The following is General Riddle's method of cultivating, curing, and drying

Setting the Roots.

The spring of the year is the proper season for the roots. Prepare the ground by ploughing and manuring in the same manner as for a grass crop. Plant the hops in hills seven feet apart each way, putting three peices of the root, each about four inches long, in a hill.

The roots will not vine the first year, consequently a crop of corn may be taken from the same ground, by planting in intermediate rows. In the fall succeeding, put a shovelfull of manure upon each hill of the hop-yard, as protection of the roots against the frost.

Setting the Poles.

Nothing further is necessary for their welfare till May, the proper time for setting the poles.

Hemlock is the best material for poles—18 feet long, shaved on four sides in order that they may season well, thereby lasting the longer. Set two poles to a hill, about nine inches apart, and in ranges, leaning a little to the south, so that the branches of the vine may swing free. When the vines have grown to the right length, select two of the most thrifty, and tie them with woollen yarn to each pole. This is very important. And attention also should be given to keep the maine vines always upon the pole.

Cultivate the yard well, so as to keep it free from grass and weeds, and prevent the branch vines from growiug about the hill.

The hop generally blossoms about the 2d of July, and is matured fit for picking by the 5th of September. When the burr beginning to open at the base, acquires a yellowish tinge, and the lupulin or flower has covered the tip of its stem, the hop is ripe and ready for harvest.

Picking the Hops.

The method of securing the hop crop when ripe is quite simple.

The vines are cut at the hill, and the poles, pulled from the ground, are laid across a box into which the hops are picked. This box is usually about six feet long, three feet wide, and three feet high. Four or more can work at the same box. Females are generally the most expert in picking. A man or boy is necessary to tend the box and handle the poles. One person can pick from 25 to 30 pounds of dry hops per day. They should be as gathered free from stems and leaves as possible.

Curing them, and the kind of kiln.

After picking, the green poles are brought to the kiln to be dried, which is the most important part of the hop-growing process. It requires no inconsiderable degree of skill to be snccessful in this department, as knowledge of the machanism and nature of a kiln is also necessary.

The most approved kiln is constructed after the following plan:

A brick foundation-wall is built seven or eight feet high, and ten by eleven feet in dimension. It is well to have this wall plastered internally. In the centre of the front wall at the base, there is placed a large stone or brick furnace, suitable to receive fuel from without, and furnished with a funnel passing around within the foundation, above three feet from the top, and terminating in a chimney provided for the purpose. At the base also of this front wall, and on each side of the stove or furnace, there are two small openings, one foot by three feet in diameter, to let in cold air at the bottom of the kiln. The top of this foundation is laid with lathing one inch wide, the strips being one inch apart, and covered with a thin flaxen cloth. Boards about ten inches wide, are placed lengthwise around this cloth, leaving a narrow walk around the kiln. The superstructure is placed upon the foundation-wall, as convenience may require, with a roof for shedding the rain. The walls are about eight feet high, and provided with slide or blind openings, suitable to admit the air for driving off the dampness which arises in the process of drying the hop. Such a kiln is capable of curing 150 pounds of hops in twelve hours, if properly regulated.

The green hops are placed in the kiln-box and spread upon the cloth about eight inchees deep.

Drying and Bagging

A constant heat must be kept up untill the dampness of the hops has passed off. Attention also should be paid to the regulation of the windows above spoken of.

To ascertain when the process of curing is over take a medium-sized hop and snap it; if the leaves fall off, and the stem breaks short off, it is sufficiently dry. The hops may then be removed to a room as free from light as possible, but provided with windows to admit a free circulation of air. A room adjoining the kiln is most convenient, where they should lie ten or twelve days before bagging. Hops are pressed into bales five feet long, eighteen inches thick, containing about 200 pounds—much in the same manner in which cotton is packed. The cider-press is commonly used for this purpose.

Expense of Growing Hops

It requires 1 1-4 acres of land to grow 1000 pounds. Good soil produces one to one and a half pounds to the hill, if properly cultivated.

The cost of hemlock poles prepared for setting is two and a half cents a-piece.

It requires six feet of hard wood to cure 1000 pounds of hops.

The cost of a kiln, after the above plan, is $50, or thereabout.

The whole cost of cultivating a field of hops, including picking, curing, and pressing, is about five cents per pound.

AGRICULTURE OF LOWER CANADA.

The Agricultural Association of Lower Canada will hold its next meeting on the 12th, and three following days in September, ot Quebec; and as the agriculture of the province is of paramount importance to the prosperity aud progress of the people and the country; we are anxious to direct the attention of our friends and subscribers, to the proposed meeting, and to bespeak their active co-operation in objects so important to all.

The Royal Agricultural Society of England, whose proceedings are copied by nearly all the Agricultural Societies in the Britsh Empire, and the Farmers' Club at New York, which, under a more plain, and unpretending title, aims at the same objects; have thought it wise and well, instead of frittering away the energies and time of the members in general discussion; to grapple with any question of difficulty, or importance which may arise, and to investigate and deal with all questions which have a practical application to Agriculture and Rural Economy. Thus the intermixture of breeds in the raising of cattle, horses, sheep and swine; the best modes of treating dairy produce; the improvements in agricultural implements, which will enable the cultivator to raise the largest successive crops, without exhausting the land: the introduction of roots and grasses suited to the soil, the modes of treating them, and a consideration of the amount of nutriment each may contain, as ascertained by analysis; the diseases to which vegetable products are subject, such as the smut in wheat, the fly in the turnip, and rot in the potatoe; all these important questions are dealt with on their merits, and the farmer at once reaps all the advantages to be deduced from the discussions and investigations of the chemist, the geologist, the botanist, and the practical agriculturist.

When Baron Liebig, the eminent German chemist, first gave his attention to agricultural chemistry, the old-fashioned farmer asked with a sneer, and a shrug of the shoulders, "what chemistry had to do with turning over the land, and cultivating corn;" but the chemist was soon enabled to show the farmer by practical experiment, that soils which had become exhausted by continuing the same crops, or which were deficient in the power of nutrition to the plant, could be made to produce many fold, by the addition of the elements which were absent, and which could be easily supplied, in a soluble and concentrated form. So in respect to the percentage of nutrient matter, in various products, animal and vegetable, chemistry achieved the discovery, that while fatty and carbonaceous matters gave warmth to the body, farinaceous foods went more directly to the production of blood; it showed the percentage of water, and of nutrient in every product, and indicated the kind of food which should be given in different climates, seasons and circumstances. Mr. Mechi, a citizen of London, whose tastes led him to combine commerce with cattle-feeding, has shewn at his farm, at Tip Tree Hall, in Essex, how much study and attention to the varieties of food given to cattle can accomphish, in fattening the animal, and furnishing human food. The experiments of Mr. Mechi deserve especially to be quoted and referred to in this country, where stall-feeding is rendered necessary for so large a portion of the year, and as we have had the abvantage of inestvigating and studying Mr. Mechi's arrangements, we shall recur to the subject, and quote from our own observation, for the benefit of our rural readers. We trust also that the association will not lose sight of this important subject, and that the best instructions will be given, consistent with the expirience of others, in stall-feeding and the raising of stock, as food for the people.

Equal, or perhaps superior, in importance to the production of animal food, is the cultivation of the cereals and of vegetables. The wheat of Canada, like the wheat of the

still more distant Colony of Australia, has already acquired a high character in the markets of Europe; but there is one esculent, the potatoe, which forms so large an item in the food of the people, and to the cultivation of which, it would be difficult to attach too high an importance. We trust the varieties, the modes of cultivation and the diseases of the potatoe, will receive all the attention which its importance in the list of *materia alimentaria*, merit for it. The association will not fail to remember, that no esculent hitherto discovered, is so universally used as an article of diet, in all countries to which it has been introduced. Even in France, where the *pomme de terre* has made slow progress, it now supersedes the *haricot* and other vegetables, containing infinitely more nutriment. The causes of the popularity of the potatoe are doubtless to be found in the superior ease with which it can be prepared for the table, in its light, palatable, and digestible properties; and the facility with which it may be cultivated. It is a matter worth noting, in respect to this tuber, and the fact, we recollect, was quoted by Professer Mapes, at a recent meeting of the Farmers' Club at New York, that thousands of bushels of potatoes, not of the first quality, have been sold this Spring in New York at from $2 to $2¼ per bushel; the newly arrived immigrant cannot do without the potatoe, it has antiseptic qualities, which are invaluable after a sea voyage, and those who have been accustomed to it, can ill forego its use, or adopt a substitute.

General Beatson, who commanded at St. Helena, and who was not unwilling to turn his sword, for the nonce, into a ploughshare, at the suggestion of the Royal Agricultural Society, experimented largely, and under favorable circumstances of soil and climate, in the cultivation of the potatoe. He found that the depth to which the seed should be covered was six inches, that at a greater or less depth of covering, the crop was smaller and of inferior quality. He also found that the largest and most perfect potatoes, when used for seed, would give a much larger and finer produce that a like weight of any other size. He tried the potatoe whole, of every size, cut into segments, the eyes gouged out for planting, and at every depth, but this was the invariable result; each experiment, even in its sub-divisions, being made upon an acre of ground, so that no objection might be raised in regard to insufficient space for the trial. These experiments have been repeated, and the result has confirmed the accuracy of the observation, both in the United States and in Europe. A German method of cultivating the potatoe was suggested about the same time, and went the round of the Agricultural papers. It was suggested that when the potatoe vine was one foot high, its stalks should be pressed outwards, laid flat on the ground, and covered with earth, leaving the tips only exposed; when these again became a foot high, they were pressed inward, again covered with earth, leaving the end as before, exposed, and thus the bending down and covering was alternately continued, until the vines blossomed, when the process was discontinued. It was found, under this treatment, that the whole length of the stem could be made to bear tubers, and to yield in the proportion of three thousand to one, but it was found also that the size and quality of the tuber rendered them valueless, except as found for cattle, and the process indicated by Gen. Beatson is now admitted, by all accomplished agriculturists, to be the very best for the production of the potatoe, for human food.

Facts such as these have a profound and important bearing upon agriculture, and we have no doubt the Agricultural Association and our agricultural readers will direct their attention to all that is passing in other lands, and which may be made to conduce to the prosperity of our own country. This sould be the aim, scope, and object of all shuch efforts; and we, as public journalists, should ill perform our duty to the society, of which we hope to be useful members, if we ignore, or omit, to bring these subjects under the notice of our readers.—*Montreal Pilot.*

ANOMALIES OF BRITISH GRAIN MEASURES.—The Winchester, or Imperial bushel measure, dates as far back as the reign of King Edgar; and the first attempt to secure a uniformity of weights and measure in the country is almost coeval with the consolidation of the Saxon rule. One of the earliest of our Norman kings (Richard II.) ordained that standards of weights and measures should be kept in every city and borough in the kingdom. It is provided by Magna Charta that there shall be but one weight and one measure throughout the realm; and also by the Act of Union between England and Scotland, that uniform weights and measures shall be used throughout Great Britain and Ireland. Many Acts of Parliament also have been passed to secure the same object; yet it is still far from being accomplished—"so forcibly," as Sir Edward Coke observes, "is custom with the multitude." At the present time grain is nominally sold by measures of capacity, none others being legal; but still, in the great majority of cases, grain is practically sold by weight. Thus in seventy-seven of the market towns in England and Scotland from which weekly corn reports are made, wheat is sold by the quarter of eight bushels. A bushel of wheat, of good quality weighs about 63 lbs. avoirdupois; a bushel of wheat of inferior quality weighs from 2 lb. to 5 lb. less. In East Lincolnshire 63 lb. to the bushel is expected by the purchaser, who, if a corn-factor or dealer, probably sends the wheat so obtained in that country to either of the great emporia of the West Riding, Leeds and Wakefield, where it is sold at the rate of 60 lbs. to the bushel. It is believed that this difference in weight was originally intended to cover the freight from Lincolnshire to Yorkshire, but at the present time it only operates to complicate the calculations of corn-dealers, who of course buy according to current rates and debit incidental charges without reference to the difference between the Lincolnshire and the West Riding measures. At nearly all the seventy-seven markets alluded to the bushel is expected to contain a given weight. As it seldom happens that the measure and the weight coincide, the difference it made up artificially. Thus, a low quality of wheat which weighs only 58 lb. to the bushel, must have other 5 lb. added to each bushel to bring it up to the standard of 63 lb. But no account of this operation is taken in the official inspector's returns; that functionary recognises only measures, not weights; so that in the case just adduced, where 5 lb. of wheat over and above the weight the bushel measure will hold has to be given by the seller to bring it up to the standard of 63 lb. per bushel, one bushel in every 12½ bushels thus sold is omitted from the returns, which, of course, makes those documents, *pro tanto*, fallacious. The inferior descriptions of grain, such as beans, barley, and oats, are bought and sold in the same way. They are almost uniformly sold by the quarter of eight bushels. A bushel of beans of the best quality weighs about 66 lb. avoirdupois, a bushel of barley, 46 lb., and a bushel of oats 42 lb. Inferior qualities are made to correspond to these weights by increasing the quantity. The whole system is, in fact absurd and complicated in the last degree, and a great reproach to our commercial system. The question of agricultural statistics has already entered the phase of practice, and will, probably, be soon carried out on a national scale; but unless something be done in the meantime to establish uniform grain measures, half the advantages of the statistical returns will be lost. Judging from the actual tendencies of the trade, grain ought to be sold by weight and not by measure, weight being generally made the test of quality. It is believed by many of those most conversant with the trade, that the hundred-weight, is already used in some of the Irish markets, would be the best substitute for the present imperial quarter. *English paper.*

BREEDS OF CATTLE.

At a recent agricultural meeting held at the Boston State House, some interesting remarks, which we condense from the N. E. Farmer were made in relation to the value of the different prominent breeds of cattle as adapted to different purposes and parts of the country. The remarks of SANFORD HOWARD, who has a very extensive knowledge of the subject, and of B. V. FRENCH, a gentleman of much practical experience, furnish some valuable hints and state interesting facts:

Mr. HOWARD opened with a succinct

history of the *domestic ox*. its origin, kindred species, &c., which displayed considerable research and a full knowledge of the subject. The ox, he said, could be traced to any extinct race of animals, or to any now in existence, and although there is generally supposed to be but one species of domestic ox, yet there are different breeds varying in their characteristics. Breeds are of two classes, natural and artificial, the latter being the result of man's agency—as the Ayrshire cattle may be called an artificial breed.

The object in breeding cattle should be to propagate varieties which combine most fully those qualities needed for a specific purpose, as for beef, milk or labor. These qualities are somewhat antagonistical, particularly fattening and milking. Fat cattle should be marked by fulness and rotundity, while the milch stock should be characterized by flatness rather than roundness. The animal, too, which has the greatest tendency to fatness has insufficient muscle and nervous energy, for labor. Stock can be best improved by cultivating for specific purposes. Some farmers think a stock should be obtained which will combine *all* qualities, but this is unreasonable. No farmer expects to get his clothes, shoes, farming utensils, &c., all made by one individaal; and on the same principle, he should rear stock for particular uses. A great point in rearing stock is to provide sufficient food and shelter, for until this is attended to, it is of little use to talk about breeds. Farmers lose immensely every year by insufficient feeding. As to *breeds* of cattle, nothing definite can be said, in reference to this section of country, because no adequate experiments have been made in this matter in this section of the country. Different breeds are required for different localities. Mr. HOWARD submitted the following list, as the best he could recommend:

As Dairy stock, on poor and rough soils, the *Kerry* breed, which is indigenous to the mountains of Ireland, and represented by all authorities as combining a remarkable hardiness of constitution with superior dairy qualities, especially for butter.

2nd. For better soils and milk-selling establishments, the *Ayrshires*.

3rd. For cities and towns, the *Jerseys*, at the same time testing them by fair trials as to general adaptation.

4th. A selection from the common so-called *Native* stock, to be subjected to a systematic course of breeding.

5th. Crosses of the *Ayhrshire* and *Jersey* with the common stock, the offspring to be kept separately for such a period as may be necessary to test their qualities.

1st. For fat stock of secondary value for diary purposes, on poor and rough soils and severe climate, the *West Highland Scots*.

2nd. For somewhat better soils GALLOWAYS and DEVONS.

3rd. For medium soils, HEREFORDS.

4th. For the best soils and a milder climate, the fattening variety of SHORT HORNS, tried also in comparison with the Herefords.

The Herefords, West Highlanders, and Devons are excellent draught cattle. Our climate is a very trying one for cattle, on account of its extremes of heat and cold, and this is one reason why Short Horns have so seldom succeeded in New England. The Western Highland breed is a very hardy one, and fatten as readily the third year as any other variety. In England it is considered the model in the improvement of all other breeds as to form.

Mr. FRENCH, the chairman, said that, after considerable experience in raising cattle, he had come to the conclusion, that the milking properties of an animal were matters of mere chance,—good qualities in this respect not being confined to any particular breeds. Ayrshire are about as good for milk as any, but their forms are not so good. The best ox he ever owned came from Worchester, and was of Holderness breed. The Herefords are a good breed, well adapto the country, large, good milkers, and making good beef. The Alderneys are very popular now, as yielding very rich milk, and being gentle, but they are not worth much for beef or working. The Durhams are altogether too heavy for this section of the country; they may do well with the blue grass of Kentucky, but they generally fail on the short feed of this region. He had tried Ayrshires and Durhams, but had given them up, and was now trying Devons, which he found to be fair, good milkers. In England the largest recorded yield of milk, was given by a Devon. One good quality which they possess, is an almost unvarying uniformity of color, a pure red, which may vary a shade in different animals, and they possess great symmetry of proportion. Their beef commands a higher price in New York market than any other, being sought after by hotel-keepers, on account of its juiciness. He felt well satisfied that his Devon oxen were unsurpassed by any other breed; they are smart and tractable. Mr. LINCOLN, of Worcester, said he knew of half-blood Ayrshire oxen which were excellent working cattle, but had never seen any full-blooded. They are quick, active and hardy, and teachable, and what some called high spirited but what we called *timid*. He owned all the Ayrshire stock of the late Col. LINCOLN, and did not think more gentle cattle could be found on any farm. He considered the red Ayrshires equal to any breed, and as surpassing the Devons in activity.

ALSYKE CLOVER.

"Alsyke," or Perennial Hybrid Clover Seed, is indigenous in Sweden, where it has been cultivated in the native pastures of that country for the last hundred years, and has in some cases been known to grow to the height of five feet, although in England it attains only that of two feet. The root is fibrous, and the heads globular.

The plant bears a greater resemblance to the white than to the red clover; and although its stems are recumbent, they do not root into the soil like those of the white clover; in short, it may be described as a "giant" white clover, with flesh-colored flowers. The plant yields two mowings annually. Linnæus observed the Alsyke clover growing on poor, bare, obdurate clays in the Morea, where no other plant could be made to vegetate; and yet, under such unfavorable circumstances, this clover flourished with an uncommon degree of luxuriance, and yielded shoots as tender and succulent, although not so abundant, as if reared in the most richly-manured fields. Micheli mentions the plant as growing in open situations on a clayey soil, and as being, in his opinion, worthy of cultivation. Sturm says it is found in Holland, and that he tried its cultivation along with that of a great number of other clovers, placed under the same circumstances, and that the results convinced him that there is no other kind of clover equal to it for the purpose of feeding cattle. The red clover will last only two years in perfection, and often, if the soil be cold and moist, nearly half of the plants will rot, and in the second year bald places will be found in every part of the field; besides that, in September and October many crops left for seed are lost in consequence of the heavy rains during that period; while the Alsyke clover, on the contrary, ripening its seed much sooner, and continuing in vigor much longer, much risk and expense are avoided, and a large profit accordingly accrues. Further, when this plant is once established, it will remain for a great many years in full vigor, and produce annually a great quantity of herbage of excellent quality. The best method of disposing of the Alsyke clover crop is either by mowing it for hay, cutting it occasionlly as green food, or feeding it down with sheep, in which latter case it may be turned on sooner than any other clover; and if eaten down quite bare, and the stock taken off the first week in June, the next crop will come sooner to the scythe than any other species of clover so treated; and if saved for seed, the seed will be ripe sooner than any other, and the plant will again afford a good bite for the sheep until the land be required to plough for wheat—a heavier crop of which is invariably produced after Alsyke than any other clover. If mown for hay, it should be cut as soon as most of the heads are in full bloom, and before they begin to turn brown and die away. Observe the foliage in the lower parts of the plants—when the leaves turn yellow, decay, and drop off, the crop should be cut; for by standing longer, the plant will lose more at the bottom than it gains at the top. The weight of the seed required to be sown is, according to circumstances, from ten to fifteen pounds per acre, an extent of crop which will produce many tons annually of green herbage, independant of a crop of seed. The hardy nature of the plant is proved by the

fact of its thriving by transplantation; it will admit of being taken up at the expiration of two or three years and planted in any other situations; the plant when taken up is merely divided, and its fibrous roots cut a little with a pruning-knife; so that the farmer need never be at a loss for a crop of clover. The Alsyke does not suffer from the severest frosts; it will flourish on the most barren land, where few grasses will grow at all, producing a heavy crop of seed, and affording an abundance of nutritious herbage for horses, oxen, and sheep; and when land has become clover-sick, and cannot be depended on for a crop of the ordinary sorts of clover, this has never been known to fail.—*Farmer's Companion ands Horticultural Gazette.*

NIGHT-SOIL, ETC.

We commend attention to this subject, and invite our readers to notice the following from the volume recently published by Prof. Nash.

"In European countries, as also in some of our cities, this has been wrought by various processes into a dry, portable, inoffensive, but very powerful manure, under the name of *poudrette*. This is one of the forms in which the fertilising agents of the city are returned to the country, whence they came.

On the farm the night-soil may be put to good use in a less troublesome way. After being carried off in the spring—or better, in the latter part of winter, while it is yet cool—the bottom of the vault should be covered, at least a foot in depth, with fine black peat or mud, previously prepared and dried for the purpose. A little of the same should be thrown down daily through the summer, and once a week or fortnight during the winter. If a plaster be occasionally added, it will be well, though this is not essential. The peat itself will be sufficiently *deodorizing*, if put down in such quantities as to be kept fairly moist and no more. It will with hold all foul odor. It is well to have an opening in the rear of the building, and a pile of prepared peat lying near, that it may be thrown down without much trouble, lest it be neglected. Good farming requires daily attention to many little things, and unless a previous preparation for them be made, these little things, important in the aggregate, are apt to be lost sight of. A farmer might better bring peat several miles for the foregoing purpose than not to have it. In an ordinary family, as many as five loads of a kind of poudrette can thus be made, not as concentrated nor as portable as the article bought under that name in our cities, but sufficiently so for home use, and excellent for any soils except peaty, and for any crops except it may be for potatoes and other roots. For cabbages, wheat, corn, or clover, it would be first-rate. If used for corn, and especially if used as a top-dressing for old mowing, it would be well to apply plaster pretty plentifully with it. I know of nothing that will bring up red and white clover on an old mowing like it.

Many families make use of chloride of lime as a *deodorizer*, or *disinfecting agent* about the privy. They pay for it in ten or twelve cents a pound; and, at that, it is ineffectual unless used in considerable quantities. Peat is cheaper and better. When peat can not by any means be obtained, black, vegetable mould from the edge of the wood, or wherever great quantities of leaves have drifted together and decayed, will answer. If this cannot be obtained, there is a sort of home-made chloride of lime, which can be prepared easily, and is worth more for agricultural purposes than it costs.

To prepare it, take one barrel of lime and one bushel of salt; dissolve the salt in as little water as will dissolve the whole; slack the lime with the water, putting on more water than will dry slack it, so much that it will form a very thick paste; this will not take all the water; put on, therefore, a little of the remainder daily, till the lime has taken the whole. The result will be a sort of impure chloride of lime; but a very powerful deodorizer, equally good, for all out-door purposes, with the article bought under that name at the apothecary's, and costing not one twentieth part as much. This should be kept under a shed or some out-building. It should be kept moist, and it may be applied wherever offensive odors are generated, with the assurance that it will be effective to purify the air, and will add to the value of the manure much more than it costs. It would be well for every farmer to prepare a quantity of this and have it always on hand."

Again, he says:

"Night-soil should be removed to the land every spring. Its value, as a fertilizer is greatly increased, if mixed with six or eight times its bulk of dried peat or swamp mud. Its value would be still more increased, if the peat or mud, in a dry state, could have been thrown in with it daily, or once in a few days during the previous year; and this either with or without (better with) a little plaster, would have prevented the bad smell from that source, which is too often noticed about premises. *Poudrette* can be prepared in this way at little expense, and quite as effective as much that is offered in market at a higher price. Night-soil is valuable for grass-land, and for all kinds of grain. In whatever form it is used, it should be spread thinly over a large surface, rather than be put in large quantities in one place.

There is another article to which the last remark applies with great force. It is old plastering from the walls of rooms. This contains silicate of lime, and what is of more value than all the rest, *nit ate of lime.* This last is a very soluble salt, and is so valuable for any of the grain crops, but more especially for wheat, that not a particle of it should be lost. Every ounce of old plastering should be put upon the field. Even the rubbish of old brick walls should be pounded up and put upon the land. But this and old plastering shold be spread thinly over a large surface. Probably a ton of either, if mixed with a compost that was to cover five acres, would benefit the first year's crop more than five tons spread on a single acre.

Whether the new occupant of this farm should go largely into the use of plaster, is a question for him to settle on the ground. He should, at any rate, have some on hand to use about manures. There is a strong presumption in favor of plaster on a farm upon which nothing is known of its effects by experience. He should inquire of his neighbors. If their testimony is against the use of plaster in that region, *let him not believe it*, but let him make the trial for himself. He may make it on a small scale at first, so as not to injure him much if it fails. If, on the other hand, the testimony of the neighborhood is favorable to the use of plaster, he might take it as undoubted. A hundred neighborhoods have testified falsely against the use of plaster in their particular location to where one has over-estimated its value. Very few are the locations where plaster is not worth the purchase-money, or more.

It is very true that plaster can not be relied upon alone. It is not a manure in the fullest sense of the word. It contains but two ingredients, and those are not all that plants need Plants could not grow in plaster *alone*, but that does not prove that they should have *none*. The truth is, *it acts partly as a manure*—feeding the plants with its sulphuric acid and lime, the very ingredients which clover, corn, potatoes, and some other crops, largely require—and *partly as a stimulant*—hastening, by its lime, the decay of vegetable matter in the soil. In other words, *it feeds the plants a part of their food, and it hurries the vegetable matter in the soil to feed them more.* On dry soils it performs *another important office* —that of *attracting moisture.* Some say it has not this effect. I know very well that in its unaltered state it has not. Set an open barrel of plaster in the air, and it will remain dry. But it does not long remain unaltered about the roots of plants. The sulphuric acid and the lime part company, and in their transformations they perform the three offices I have described—*feed the plants convert half decomposed matter into vegetable nutriment and attract moisture from the air and from the sub-soil.* This last office is important on lands that are dry. On wet lands it should not be used till they have been thoroughly drained.

Plaster will not do well permanently without other manure. It requires that organic matter should be present. In pastures, this is supplied by the droppings of the cattle and by the decay of grass roots. On mowings, it should be supplied by top-dressings; and on plough lands, by harrowing in manure. It would be as unreasonable to complain of plaster because it will not act well always without other manure, as to find fault with roast-beef because it does not afford a

suitable diet without other food. The same might be said of ashes. Land dressed with ashes alone, will soon be found in a sad condition; and yet the potash, soda, and lime they contain, are worth far more for agricultural purposes than the price generally allowed by soap-boilers. Their alkaline salts act favorably upon the silicates in the soil; they render insoluble silica *soluble*, and are therefore valuable on uplands; while on peaty lands, if well drained, and on any lands which abound in inert vegetable matter, their value is very great."

DISCUSSION ABOUT CATTLE.

At a late meeting of the Agricultural Club in Boston, Mass., Sandford Howard presented the following excellent suggestions upon the comparative merits of various kinds of cattle:

Breeds may be classed as *natural* and *artificial*; the peculiar characteristics of the former are the result of natural causes; those of the latter, the result of man's interference. The Merino and Scotch black-faced sheep, West Highland and Devon cattle, are examples of natural breeds; the Leicester and improved Cotswold sheep, Ayrshire and improved Short-horn cattle are examples of artificial breeds. Breeds of cattle must be chosen according to the situation in which they are to be placed, and the purposes for which they are designed. Cattle are wanted for beef, milk, and labor. These properties are in some degree antagonistical; they cannot be combined in the highest perfection in the same animal. For instance, the fattening animal should possess, as much as possible, a rotundity of form, with a broad chest, and an even balance of the fore and hind quarters; whereas the milker should be characterized by flatness rather than roundness, and a considerable preponderance of weight in the hind quarters. Animals which have the most extreme tendency to fatten, are deficient in the muscular fibre and nervous energy necessary to confer activity and strength. Opinions in reference to the comparative merits of breeds for this section, must be in a great degree conjectural, owing to the limited trials which have been made; but we may be guided in selections for particular purposes, from what is known of their characteristics. On this basis, the lecturer submitted the following list:

As Dairy Stock.—1. For poor and rough soils, the Kerry breed, indigenous to the mountains of Ireland, and represented by all authorities as combining remarkable hardiness of constitution with superior dairy qualities, especially for the production of butter.

2. For better soils, and for milk-selling establishments, the Ayrshires.

3 For cities and towns, the Jerseys, at the same time testing them by fair trials, as to general adapattion.

4. A selection from the common, or so-called native stock, to be subjected to a systematic course of breeding.

5. Crosses of the Ayrshire, and of the Jersey, with the common stock, the offspring to be kept separately for a sufficient period to ascertain their qualities.

As Fattening Stock, of Secondary Value for the Dairy.—1. For poor and rough soils, and a severe climate, the West Highland Scots.

2. For somewhat better soils, the Galloways and Devons.

3. For medium quality of soil, the Herefords.

4. For the best soils and milder climate, the fattening variety of Short-horns.

The Herefords, Devons, and West Highlanders are excellent draft cattle.

In this climate, owing to the extremes of heat and cold, strength of constitution is an important requisite in cattle that are obliged to undergo more or less exposure at all seasons. On this account, as well as for other intrinsic properties, the lecturer advocated strongly the introduction of the West Highlanders.—*The Plough.*

POTATO CULTURE.—Mr. R. Errington, in the *Cottage Gardener*, after stating that luxuriance of growth is a promoter of disease, cautions the inexperienced against deep planting, especially for crops required early; "but even later kinds love not to be buried deep. Let those who would prove this just try a few rows of early potatoes side by side. Let them plant one lot about seven inches in depth, and the other about three, and I will engage that the latter will be ready for use nearly a fortnight before the deep planted one. Moreover, early crops are best without after application of soil, if it can be dispensed with. I have know a frame of potatoes retarded a fortnight or more by an ill-judged application of surface-dressing when they were six inches or more in height; and no wonder, either. Persons thus over officious do not consider that in so doing they interpose a cool and fresh body, somewhat non-conducting, between the generally warmed medium the roots are in and the atmosphere, and that such interposition must lower the temperature where the roots are situated by perhaps five degrees; of this fact I am persuaded, having well proved it."

The Flax market is very firm, and the quotations have an upward tendency. Russian Hemp has changed hands at a considerable advance. Petersburgh clean has produced £70 to £75 per ton. Coir goods are steady. Jute has risen 10s. to 15s per ton.—*English Paper.*

The growing wheat crops throughout the Union are represented to be unusually promising. Every where in the north and west there is an increased breadth of land under wheat—say 20 cent—and the prospect is, that the yield in Ohio, Kentucky, Indiana, Illinois, and other western States, will be twenty to twenty-five per cent. greater than that of last year, in spite of the fly, the rust, and the hard winter.

FLAX AND BARLEY.—There are some remarks in the March number in regard to raising Flax and Barley together. I have tried flax and *oats* for several years, and they do well. The straw, instead of being fit only for bedding, is the best I can raise for stock; they are extremely fond of it. The seed may be fed with the oats, or separated by the screen of the fanning mill. I sow a peck of flax-seed and a bushel and half of oats, with plenty of plaster and ashes. —*Farmer's Companion.*

"GO FORTH INTO THE COUNTRY."

Go forth into the country
From a world of care and guile,
Go forth to the untainted air,
And the sunshine's open smile;
It shall clear thy clouded brow—
It shall loose the worldly coil
That binds thy heart too closely up,
Thou man of care and toil!

Go forth into the country,
Where gladsome sights and sounds
Make the heart's pulses thrill and leap
With fresher, quicker bounds.
They shall wake fresh life within
The mind's enchanted bower;
Go, student of the midnight lamp,
And try their magic power.

Go forth into the country,
With its songs and happy birds,
Its fertile vales, its grassy hills,
Alive with flocks and herds.
Against the power of sadness
Is its magic all arrayed—
Go forth and dream no idle dreams,
O, visionary maid!

Go forth into the country,
Where the nuts' rich clusters grow;
Where the strawberry nestles 'mid the furze
And the holly-berries glow.
Each season hath its treasures,
Like thee all free and wild—
Who would keep thee from the country,
Thou happy, artless child?

Go forth into the country;
It hath many a solemn grove,
And many an altar on its hills,
Sacred to peace and love.
And while with grateful fervor
Thine eyes its glories scan,
Worship the God who made it all,
O, holy Christian man!

Dublin Univ. Mag.

MONTREAL MARKETS.

Hay, from 12 to $13 per 100 bundles.
Straw, 9 to $10 do
Beef, 6 to $8 per 100 lbs.
Pork, 8 to $9 do
Mutton, 3 to $7 per piece.
Veal, 3 to $7 do
Wheat, 9s to 9s 3d per bushel.
Indian Corn, 3s 9d to 4s per 56 lbs.
Rye, none.
Barley, 4s per bushel, none on hand.
Oats, 2s 9d to 3s per minot.
Peas, 6s 3d. do.
Buckwheat, 5s.

COLUMBUS.

THIS SUPERB STALLION will stand for the service of MARES, at the Stables of the Subscriber, on MONDAY, TUESDAY, WEDDAY and THURSDAY, and at the FERRY HOTEL, Longueuil, on FRIDAY and SATURDAY, each week of the season

He is four years old, of a beautiful Jet Black Colour, stands sixteen hands high, and weighs thirteen hundred and fifty pounds.

He took the FIRST PRIZE at the MONTREAL COUNTY SHOW in 1852, and again at the DISTRICT SHOW same year, also the FIRST PRIZE in the class of three year Colts at the GREAT PROVINCIAL EXHIBITION at MONTREAL, in September last, beating several Colts from Upper Canada.

TERMS—$5 FOR THE SEASON.

Payment must, in all cases, be made in advance, and no second service will be rendered within a fortnight.

EDWARD QUIN.

Long Point, 1st June, 1854.

AGRICULTURAL SOCIETY
No. 2,

COUNTY OF HUNTINGDON,

OFFER the following PREMIUMS for STANDING and GREEN CROPS, open to all Members of this Society.

Best Wheat, not less than 4 arpents, 6 prizes, 30s. 25s. 20s. 15s. 10s. 5s.
Best Barley, not less than 4 arpents, 4 prizes, 20s. 15s. 10s. 5s.
Best Oats, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s. 5s.
Best Peas, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s 5s.
Best Clover and Timothy Hay, not less than 4 arpents, 8 prizes, 25s. 22s. 6d. 20s. 17s. 6d. 15s. 12s. 6d. 10s. 5s.
Best Flax seed, not less than ½ arpent, 4 prizes 20s. 15s 10s. 5s.
Best Indian Corn, not less than ½ arpent, 3 prizes 20s. 15s. 10s.
Best Potatoes, not less than 1 arpent, 7 prizes, 25s 20s. 15s. 12s. 6d. 10s. 7s. 6d. 5s.
Best Carrots, not less than ½ arpent, 4 prizes, 20s. 15s. 10s. 5s.
Best Mangols, not less than ½ arpent, 4 prizes, 20s. 15s. 10s. 5s.
For the best managed Farms, 9 prizes, 30s. 25s 20s. 17s. 6d 15s. 12s. 6d 10s. 7s. 6d. 5s.

Competitors on Farms and Growing Crops must notify the Secretary on or before Saturday, the Eighth Day of July, 1854, and pay 1s 3d on entering Growing Crops, and on both 2s 6d.

The Judges will commence on Monday, 10th of July, to view and judge the above.

By Order, JOHN DUNN.
Secretary-Treasurer.

Laprairie, 10th March, 1854.

NOTICE.

THE COUNTY OF SHEFFORD AGRICULTURAL SOCIETY No. 2, will hold its ANNUAL EXHIBITION of Stock or Cattle Show, at the VILLAGE of GRANBY, on WEDNESDAY, the 13th day of SEPTEMBER next, commencing at TEN o'clock, A. M.

By order,
F. WOOD, *Secy.-Treas.*

Granby, June 27th, 1854. 3

1854.

COUNTY OF MONTREAL AGRICULTURAL SOCIETY.

THE Subscribers to the funds of the Society generally, are notified, that TWO THOROUGH BRED AYRSHIRE BULLS have been imported, one is kept at the Stables of John Dods, Esq., at Petite Cote, in the Parish of Montreal;—the other, at the Stables of James Powley Dawes, Esq., at Lachine in the Parish of Lachine; each Member of the Society for the current year, has the right of the gratuitous use of his choice of either Bull for one Cow, but must pay a fee of 3s 9d for every other Cow sent.

Members are requested to send their tickets of Membership, and money with every second or other cow, if more than one be sent, as all payments must be made strictly in advance, otherwise no service will be rendered.

By order,
JAMES SMITH, *Sec.*

N. B.—Farmers are requested to take notice, that the entries for Crops are to be made on or before 10th July. 18 Premiums in each Class, French and English.

Montreal, 1st July, 1854.

1854.

THE COUNTY OF MONTREAL AGRICULTURAL SOCIETY,

OFFER the following Premiums, for the following Crops:—

ENGLISH CLASS.

	£	s.	d.	£	s.	d.	£	s.	d.
Potatoes, three premiums, . . .	2	0	0	1	15	0	1	10	0
Carrots, three premiums, . . .	2	0	0	1	15	0	1	10	0
Mangol Wurtzel, three premiums,	2	0	0	1	10	0	1	5	0
Turnips, three premiums. . . .	1	10	0	1	5	0	1	0	0
Indian Corn, three premiums, . .	2	0	0	1	10	0	1	0	0
Horse Beans, three premiums, . .	1	10	0	1	5	0	1	0	0

RULES AND REGULATIONS.

A Field of five arpents, at least, will be required to entitle a Farmer in this Class to compete for Potatoes.

One arpent for Indian Corn.

One arpent for Beans.

Half an arpent for Turnips, Carrots, Mangol Wurtzel, the whole to be field culture.

No person allowed to compete unless a member of the Society.

No premium to be given unless farm is free from noxious weeds.

That parties to whom premiums are awarded, shall report to the Society, the system adopted in the production of the crops.

That such premiums shall be paid only upon interrogatories being answered, and Circular returned filled up, addressed to the Secretary-Treasurer This rule will be enforced strictly.

Notice of competition to be given to Secretary Treasurer on or before 10th July next.

By Order,
JAMES SMITH,
Secretary-Treasurer.

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PRINTING IN BOTH LANGUAGES

OR AGRICULTURAL SOCIETIES, furnished with the greatest expedition and on the most moderate terms.

H. RAMSAY.

Farmer's Journal Office.

Agricultural Association for Lower Canada.

AGRICULTURAL AND INDUSTRIAL EXHIBITION to take place at QUEBEC on the 12th, 13th, 14th and 15th of SEPTEMBER, 1854.

MINISTER OF AGRICULTURE,
THE HON. DR. ROLPH, M. P. P.

PRESIDENT OF THE BOARD OF AGRICULTURE,
MAJOR T. E. CAMPBELL,

PRESIDENT OF THE ASSOCIATION,
J. GIBB, Esq.

Chairman of the Local Committee, Quebec,
J. GIBB, Esq.

WM. EVANS, Esq., *Secretary-Treasurer of Board of Agriculture and of Agricultural Association.*

J. R. ECKART, Esq., *Secretary of the Local Committee, Quebec.*

GENERAL ARRANGEMENTS.

TUESDAY, 12th September.— Inspection of Implements and Industrial Productions.

WEDNESDAY, 13th September.—Trial of Implements and Exhibition of Industrial Productions. Arrangement and Inspection of Stock.

THURSDAY, 14th September.—Exhibition of Stock, Implements, &c.

FRIDAY, 15th September.— Exhibition of Prize Stock, Implements, &c Action of tock, &c.

The Competition is open to Exhibitors from all parts of the Province. No Certificate of Entry can be received AFTER 10TH AUGUST.

The Members of the Agricultural Societies of the County wherein the Annual Exhibition may be held shall also be Members of the Association for that year, provided the Agricultural Society of the said County shall devote its wholef unds for the year, including the Government Grant, in aid of the Association.

The payment of 5s., and upwards constitutes a person a Member of the Agricultural Association of Lower Canada for one year, and Two Pounds Ten shillings for Life, when given for that specific object, and not as a contribution to the Local und.

Members of the Association are admitted to the Show Yard without payment, *provided they make application to the Secretary for Tickets of Admission* BEFORE THE 8TH SEPTEMBER. All others to pay 1s. 3d. each time of entrance.— Children to pay half price.

PART II.

Industrial Department.

CLASS I.

Raw Materials employed in Manufactures or the Arts, (exclusive of any such substance included in the Agricultural Division.)

MINERAL SUBSTANCES.

Section.	£	s.	d.
1. Best Collection of Geological Specimens	2	10	0
2nd do	1	5	0
3rd do	0	10	0
2. Best Collection of Specimens of Stone, Slate, or other Mineral Substances, used in Building	2	0	0
2nd do	1	0	0
3. Best Specimens of Stone suitable for sculpture or other ornamental purposes	1	5	0
2nd do	0	10	0
4. Best Specimen of Lithographic Stone	0	10	0
2nd do	0	5	0
5. Best Collection of Mineral Pigments	1	5	0
2nd do	0	10	0
6. Best Specimen of any Mineral Substance available for use in Manufactures, the Arts, &c., (not being specified above,)	1	5	0
2nd do	0	10	0
3rd do	0	5	0

N.B.—Each specimen must be properly designated, described and *localized*, without which it will not be admitted.

VEGETABLE SUBSTANCES AVAILABLE IN MANUFACTURES, &C.

7. Best Collection of Indigenous Sorts, in sections of about 3 inches thick across the trunk of the tree, and with the bark left on; each specimen to be distinctly marked or numbered to correspond with a list in which the locality, age, average height, peculiarities of growth, &c., of the tree from which such specimens are cut, the nature of the soil in which it grew, and the uses to which it is applied are stated, in detail	2	10	0
2nd do	1	0	0
3rd do	0	10	0
8. Best Collection of Specimens of Native Timber, Plank, &c., suitable for Naval or other Architectural purposes, in *the rough*; with descriptive Catalogue as above required	1	5	0
2nd do	0	15	0
9. Best Single Specimen of the same, (by different Exhibitor)	0	10	0
2nd do	0	5	0
10. Best Collection of Specimens of Native Wood suitable for Cabinet work or other ornamental purposes; in slabs of 1 foot x 8 in., and by 1 inch, (either solid or veneered) and with one face polished,	1	5	0
2nd do	0	15	0
11. Best Single Specimen of do	0	10	0
2nd do	0	5	0
12. Best Specimen of Vegetable Fibre (growth of Canada) available as a substitute for flax or hemp, with descriptive catalogue as above required	0	10	0
13. Best Collection of Indigenous Substances, or Extracts, suitable for manufacturing or other industrial purposes	1	5	0
2nd do	0	10	0
3rd do	0	5	0

ANIMAL SUBSTANCES USED IN THE ARTS OR MANUFACTURES.

14. Best Collection of Native Furs, (not manufactured)	1	0	0
2nd do	0	10	0
15. Best Specimen of Sole Leather	0	10	0
2nd do	0	5	0
16. Best Specimen of Upper Leather	0	10	0
2nd do	0	5	0
17. Best Six Calf Skins, dressed	0	10	0
18. Best Six Sheep or Lamb Skins, dressed	0	10	0
19. Best Specimen of Patent Leather	0	10	0
2nd do	0	5	0
20. Best Specimen of Harness Leather	0	10	0
21. Best do Carriage-top do	0	10	0
22. Best do Deer Skin, dressed	0	10	0
2nd do	0	5	0
23. Best Specimen of Porpoise Leather	0	10	0
24. Best Collection of Plucked Rabbit or Hares Fur, suitable for the manufacture of hats,	0	10	0
2nd do	0	5	0
25. Best Collection of Baked Feathers for beds, &c.	0	5	0
26. Best Collection of Feathers for making Artificial Flies	0	5	0
27. Best Collection of Horns, Hoofs or other Animal Substances available in manufactures, &c.	0	15	0
2nd do	0	10	0
3rd do (or best single specimen)	0	5	0

CLASS II.

Machinery, Implements and Tools for Manufacturing, Artistic, or other Industrial purposes, (exclusive of Agricultural or Horticultural Implements.)

LABOR-SAVING MACHINERY AND ENGINES, ENGINE-TOOLS AND IMPLEMENTS, DESIGNED FOR MANUFACTURING PURPOSES.

Section.			
1. Best Portable Steam-Engine (either reciprocating or rotary)	5	0	0
2nd do (by a different maker if upon same principle)	2	10	0
2. Best Horse-Power Machine, (or working model of the same)	1	10	0
2nd do	0	15	0
3. Best Working Model of a Water Wheel or other Water Power Engine	1	10	0
2nd do	0	15	0
4. Best Working Model of a Wind Mill	1	0	0
2nd do	0	10	0
5. Best Stone dressing Machine (or a working model of the same)	1	5	0
2nd do	0	10	0
6. Best Lumber Sawing or Shaping Machine (or working model)	1	5	0
7. Best Planing, Grooving and Tonguing Machine (or working model)	1	5	0
8. Best Machine for Stave Dressing or other Cooper's work	1	5	0
9. Best Sewing Machine	1	5	0
2nd do	0	10	0
10. Best Steam Hammer,	1	0	0
11. Best Power Loom (or power working model half the same)	2	10	0
12. Best Hand Loom	1	0	0
13. Best Spinning Wheel	0	10	0
14. Best Portable Forge and Furnace	1	0	0
15. Best Blacksmith's Bellows,	0	10	0
16. Best Turning Lathe (1st as to improved construction, and 2nd as to workmanship)	1	0	0
2nd do	0	10	0
17. Best Slide Rest	0	10	0
18. Best Universal Church	0	10	0
19. Best Drill Making Machine (or working model)	1	0	0
20. Best Tile or Pipe Making Machine (or working model)	1	0	0

PHILOSOPHICAL AND CHEMICAL INSTRUMENTS AND APPARATUS FOR MANUFACTURING, OR OTHER INDUSTRIAL PURPOSES OR FOR ARTISTS' USE.

21. Best Collection of Apparatus for Manufacturing purposes	1	10	0
2nd do	0	15	0
22. Best Single Chemical or other Article (or set of such Articles) for manufacturing purposes	0	10	0
2nd do	0	5	0
23. Best Complete Set of Apparatus for working in Electro-metalling	1	5	0
2nd do	0	15	0
24. Best Single Article (or set of such Articles) for working in Electro-metalling	0	10	0
2nd do	0	5	0
25. Best Complete Set of Apparatus (of Canadian manufacture excepting the cases) for Photographic purposes	1	5	0
26. Best Single Article for Photographic purposes (considered 1st as to novelty of construction and 2nd as to superiority of finish	0	10	0
2nd do	0	5	0

EDGE TOOLS AND MECHANICS' TOOLS AND FURNITURE.

27. Best Collection of Edge Tools	1	10	0
2nd do	0	15	0
3rd do	0	10	0
28. Best Single Set of Tools for Carpenters, Coopers, Cabinetmakers, Turners, or other distinct trade, (for each set)	1	0	0
2nd do	0	10	0
29. Best Collection of Planes.	0	10	0
2nd do	0	5	0
30. Best Set of Augers	0	5	0
31. Best twelve sheets Emery, Sand and Glass Paper	0	5	0
32. Best Stock and Dies, with Taps, for cutting metal screws	0	10	0
33. Best Set of Boxes and Taps for cutting wood screws	0	10	0

CLASS III.

Various Industrial Products and Manufactures.

CHEMICALLY OR OTHERWISE COMPOUNDED OR PREPARED SUBSTANCES OR MATERIALS EMPLOYED IN MANUFACTURES OR THE ARTS.

Section.			
1. Best collection of Animal or other Oils or Extracts suitable for Manufacturing or other Industrial purposes	1	0	0
2nd do	0	15	0
2. Best Single Specimen of do	0	10	0
2nd do	0	5	0
3. Best sample Hard Soap	0	5	0
4. Best do Composition Candles	0	5	0
5. Best do Tallow do	0	5	0
6. Best do Starch	0	5	0
7. Best specimen Isinglass, Glue, &c. (each kind)	0	5	0

ENGINEERING, ARCHITECTURAL AND BUILDING CONTRIVANCES AND APPLIANCES, INCLUDING MODELS, PLANS, DESIGNS AND DESCRIPTIONS OF THE SAME.

8. Best System of Warming and Ventilating Buildings (apart from any particularity of construction in the warming apparatus) with Models or Drawings and Descriptions	2	10	0
2nd do	1	5	0

9. Best Model of Drawing Apparatus for Buildings	1	5	0
2nd do	0	10	0
10. Best Model of a sea-going Merchant or other Steam Vessel	1	5	0
2nd do	0	10	0
11. Best Model of a Steamer for River Navigation	1	5	0
2nd do	0	10	0
12. Best Model of a Merchant Sailing Vessel	1	5	0
2nd do	0	10	0
3rd do	0	5	0
13. Best Working Plan of Naval Architecture of any description	1	0	0
2nd do	0	10	0
3rd do	0	5	0
14. Best Plan, Elevation and Details (with estimate) of a Town House	1	0	0
2nd do	0	10	0
15. Best do do of a Country Residence	1	0	0
2nd do	0	10	0
16. Best Original Architectural Design of any description	1	0	0
2nd do	0	10	0
3rd do	0	5	0
17. Best Geometric Drawing(plain or colored) of Engine or Millwright work	1	0	0
2nd do	0	10	0
3rd do	0	5	0
18. Best Original Contrivance of any kind adapted to Engineering, Architectural or Building purposes	1	10	0
2nd do	1	0	0
3rd do	0	15	0
4th do	0	10	0
5th do	0	5	0
19. Best Model (or Plan with description) of Valve Cock for main pipes of water works	1	10	0
20. Best Stop Cock for public water pipes (under pressure) for domestic supply	1	0	0
21. Best specimens of machine made Doors, Windows or Blinds	1	5	0
2nd do (not by the same manufacturer)	0	15	0
22. Best specimen of hand made Doors, Windows or Blinds	1	0	0
2nd do	0	10	0
23. Best Bundle of Shingles,sawed or split	0	10	0
2nd do	0	5	0
24. Best specimen of Ornamental Wrought Metal for Architectural purposes	1	10	0
2nd do	0	15	0
25. Best specimen of Ornamental Metal Casting for Architectural purposes	1	0	0
2nd do	0	10	0
26. Best specimen of Ornamental Stone Cutting for Architectural purposes	1	5	0
2nd do	0	10	0
27. Best specimen of Ornamental Wood Work for Architectural purposes	1	5	0
2nd do	0	10	0
28. Best specimen of Glass Staining for Architectural purposes	1	0	0
2nd do	0	10	0
29. Best assortment of Window Glass	1	0	0
2nd do	0	10	0
30. Best specimen of Ornamental Earthenware (or Terra Cotta) for Architectural puposes	1	0	0
2nd do	0	10	0
31. Best samples of Drain or Water Pipes	1	5	0
32. Best samples of Drain Tiles or Bricks	1	0	0
33. Best samples of Flooring Tiles or Bricks	0	15	0
34. Best sample of Bricks (for building)	1	5	0
2nd do	0	10	0
35. Best 12 samples Roofing Slate	1	0	0
36. Best Portable Gas Apparatus	1	5	0
37. Best Gas Burner, (considered only as to peculiarity of construction)	0	10	0

MACHINES AND CONTRIVANCES OR MODELS THEREOF FOR DIRECT USE.

38. Best Model of a Locomotive Engine	1	10	0
39. Best Model of a Railroad Car	1	0	0
2nd do	0	10	0
40. Best 4 Wheeled Carriage for 2 horses	1	10	0
2nd do	1	0	0
41. Best do do one horse	1	5	0
2nd do	0	15	0
42. Best two Wheeled do	1	0	0
2nd do	0	10	0
43. Best Piano-forte	1	10	0
2nd do	0	15	0
44. Best Musical Instrument of any other description	1	0	0
2nd do	0	10	0
45. Best Platform Scales,for heavy weight	1	5	0
46. Best Counter do	1	0	0
2nd do	0	10	0
47. Best Washing Machine	0	10	0
48. Best Fire Engine	2	10	0
49. Best Portable do	1	10	0
50. Best Model of Fire-Escape	1	5	0

MANUFACTURES IN METAL AND GENERAL HARDWARE.

51. Best Parlor or other Box Stove or model if of original design	1	0	0
2nd do	0	10	0
52. Best Cooking Stove with Utensils	1	5	0
2nd do	0	15	0
53. Best Collection of Molden Casting in iron	1	0	0
2nd do	0	10	0
54. Best Coal Grate	1	0	0
2nd do	0	10	0
55. Best Iron Bedstead	1	0	0
2nd do	0	10	0
56. Best specimen of Iron Furniture of any other description	1	0	0
2nd do	0	10	0
57. Best specimen of Ornamental Casting	1	0	0
58. Do do do Wrought Metal	1	5	0
2nd do	0	10	0
59. Best specimen of White-Smith work	1	0	0
2nd do	0	10	0
60. Best specimen of Copper or Tin-Smith work	1	0	0
2nd do	0	10	0
61. Best Rifle or Fowling-piece	1	0	0
2nd do	0	10	0
62. Best Pistol or other small Arm	0	15	0
63. Best specimen of Cut Nails	0	10	0
2nd do	0	5	0
64. Best collection of Spades or Shovels	1	0	0
2nd do	0	10	0
65. Best Iron Safe	1	0	0
2nd do	0	10	0
66. Best specimen of Wire Work	1	0	0
2nd do	0	10	0
67. Best specimen of Marbleized Iron	1	0	0

WORKS IN PRECIOUS METAL OR THEIR IMITATIONS, JEWELLERY, SEAL, ENGRAVING, &c. &c.

68. Best collection of Silver-Smith Work	1	10	0
2nd do	0	15	0
69. Best single specimen of do	0	10	0
2nd de	0	5	0
70. Best specimen of Electro Plating or Gilding	0	10	0
2nd do	0	5	0
71. Best specimen of Lapidaries Work	1	0	0
2nd do	0	10	0
72. Best specimen of Chasing or Embossing Metal	1	0	0
2nd do	0	10	0
72½. Best specimen of Jeweller's Work	1	0	0
2nd do	0	10	0
73. Best specimen of Jeweller's Ornamental Hair Work	0	10	0
2nd do	0	5	0

MANUFACTURES IN STONE, CEMENT, &c.

74. Best specimen of Carving in Stone (not before specified)	1	5	0
75. Best specimen of Manufacture in Marble or Stone (plain)	1	0	0
2nd do	0	10	0
76. Best specimen of Manufacture in Slate	0	10	0
77. Best specimen of Manufacture in Cemented Composition in Imitation of Stone	0	10	0

MANUFACTURES IN GLASS AND EARTHENWARE.

78. Best specimen of Glass Manufacture (not yet specified)	0	10	0
2nd do	0	5	0
79. Best collection of Pottery	1	0	0
2nd do	0	15	0
80. Best single article of Ornamental Pottery	0	10	0
2nd do	0	5	0
81. Best single article Stoneware	0	10	0
2nd do	0	5	0

MANUFACTURES IN WOOD, &c. (COMPRISING CARVERS', CABINETMAKERS', CARPENTERS', JOINERS', AND FARMER'S WORK; PICTURE FRAMES, &c. &c.

82. Best display of Domestic Furniture of native Wood	2	10	0
2nd do	1	5	0
83. Best single article of Cabinet-makers' Work (not included above)	1	0	0
2nd do	0	10	0
3rd do	0	5	0
84. Best specimen of Carpenters' or Joiners' Work	1	0	0
2nd do	0	10	0
85. Best specimen of Turning in Wood, Ivory, &c.	1	0	0
2nd do	0	10	0
3rd do	0	5	0
86. Best specimen of Ornamental Wood Carving	1	0	0
2nd do	0	10	0
87. Best collection of Picture Frames	1	0	0
2nd do	0	10	0
88. Best single specimen by a different Exhibitor	0	5	0
89. Best display of Coopers' Work	1	0	0
2nd do	0	10	0
90. Best single article of do	0	5	0

MANUFACTURES OF HAY, STRAW, INDIA-RUBBER OR OTHER VEGETABLE SUBSTANCES, NOT BEFORE SPECIFIED.

91. Best display of Straw or Hay Hats	1	0	0
2nd do	0	15	0
92. Best single article of Hay or Straw Manufacture	0	10	0
2nd do	0	5	0
93. Best dozen Corn Brooms	0	5	0
94. Best display of India-Rubber Shoes	0	10	0
2nd do	0	5	0
95. Best specimen of India-Rubber Cloth or other Fabric	1	0	0
2nd do	0	10	0
96. Best specimen of Manufacture from any other Vegetable Substance, not otherwise specified	0	15	0
2nd do	0	10	0
3rd do	0	5	0
97. Best specimen Manufactured Tobacco	0	15	0
2nd do	0	5	0

MANUFACTURES OF SILK, COTTON, WOOL, FLAX, HEMP, &C., ALSO MIXED FABRIC.

98. Best specimen of Silk Manufacture	1	0	0
2nd do	0	10	0
99. Best specimen of Factory made Cotton Cloth	1	0	0
2nd do	0	10	0
100. Best specimen of House-Made do.	0	10	0
2nd do	0	5	0
101. Best specimen of Machine-Knitted Cotton Goods	1	0	0
2nd do	0	10	0
102. Best specimen of Hand Knitting in Cotton (plain)	1	0	0
2nd do	0	10	0
103. Best piece of Broad Cloth from Canadian Wool	1	5	0
2nd do	0	15	0
104. Best piece of Woolen of any description factory made, from do	1	0	0
2nd do	0	10	0
105. Best do do (Hand Loom) do	0	15	0
2nd do	0	5	0
106. Best piece Woolen Flannel factory made do	1	0	0
2nd do	0	10	0
107. Best piece do do not factory made do.	0	15	0
2nd do	0	5	0
108. Best pair Woolen Blankets factory made do	1	5	0
2nd do	0	15	0
109. Best do do not factory made do	0	10	0
2nd do	0	5	0
110 Best specimen of Machine-Knitted Woolen Goods do	1	0	0
2nd do	0	10	0
111. Best specimen of Hand Knitted Woolen Goods do	0	15	0
2nd do	0	5	0
112. Best specimen of Linen Cloth	1	0	0
2nd do	0	10	0
3rd do	0	5	0
113. Best display of Flax or Hemp Cordage (assorted)	1	5	0
2nd do	0	15	0
114. Best single specimen of Manufactured Hemp or Flax	0	10	0
2nd do	0	5	0

N. B.—The foregoing to be of Hemp or Flax of Canadian Growth only.

115. Best specimen of Mixed Fabric of any description	1	0	0
2nd do	0	10	0
3rd do	0	5	0

MANUFACTURES IN LEATHER, FURS, HAIRS, FEATHERS, OR OTHER ANIMAL SUBSTANCES NOT OTHERWISE SPECIFIED.

116. Best set double Harness	1	5	0
2nd do	0	15	0
117. Best set single do	1	0	0
2nd do	0	10	0
118. Best Saddle and Bridle	1	0	0
2nd do	0	10	0
119. Best Side Saddle	0	15	0
120. Best collection of Whips or Whip Thongs	0	15	0
2nd do	0	5	0
121. Best Travelling Trunk	1	0	0
122. Best specimen of Engine Hose (not less than 20 feet)	1	0	0
123. Best display of Boots and Shoes	1	10	0
2nd do	0	15	0
124. Best single specimen (or pair) Bootmakers' Work	0	10	0
125. Best pair Indian made Moccassins (plain)	0	10	0
126. Best specimen of Indian Manufacture in Leather	0	10	0
2nd do	0	5	0
127. Best collection of Manufactured Furs	1	5	0
2nd do	0	15	0
128. Best single specimen of do do	0	10	0
2nd do	0	5	0
129. Best Beaver or Imitation Beaver Hat	0	10	0
2nd do	0	5	0
130. Best specimen of Hair Work for personal use	0	10	0
2nd do	0	5	0
131. Best specimen of Hair Cloth for Furniture	0	10	0
132. Best specimen of Manufacture in Hair or Feathers for domestic use	0	10	0
2nd do	0	5	0

ENGRAVING OR TRACING ON STEEL, COPPER, ZINC, STONE, WOOD, &C., FOR PRINTING, WITH IMPRESSIONS THEREFROM.

133. Best specimen of Artistic or Ornamental Engraving on Copper or other metallic plates	1	5	0
2nd do	0	15	0
134. Best specimen of Letter Engraving on Copper or other mettallic plates	1	0	0
2nd do	0	10	0
135. Best specimen of Artistic Lithography	1	0	0
2nd do	0	10	0
136. Best specimen of Plain or Ornamental Writing on Stone	0	10	0
2nd do	0	5	0
137. Best specimen of Wood Engraving	1	5	0
2nd do	0	15	0
3rd do	0	5	0

PAPER, STATIONERY, TYPES, TYPOGRAPHY, BOOK-BINDING, &C.

138. Best assortment of Paper for various purposes	1	5	0
2nd do	0	15	0
139. Best specimen of any single kind of Paper	0	10	0
2nd do	0	5	0
140. Best specimen of machine made Types	0	10	0
141. Best do hand do	0	5	0
142. Best specimen of Letter Press Printing, (plain)	0	10	0
2nd do	0	5	0
143. Best specimen of Copper Plate Printing	0	10	0
2nd do	0	5	0
144. Best specimen of Ornamental Letter Press Printing	0	10	0
2nd do	0	5	0
145. Best specimen of Lithographic Printing	0	10	0
2nd do	0	5	0
146. Best specimen of Ornamental Book-binding	1	0	0
146½. Best do Plain do	0	15	0
2nd do	0	10	0

EMBROIDERING AND OTHER FANCY NEEDLEWORK, &C.

147. Best specimen of Embroidering in Worsted	1	0	0
2nd do	0	10	0
3rd do	0	5	0
148. Best specimen of Embroidery in Silk	0	15	0
2nd do	0	5	0
149. Best specimen of Embroidery in Musslin	0	10	0
2nd do	0	5	0
150. Best specimen of Embroidery in Porcupine Quills or other substances (not specified)	0	15	0
2nd do	0	10	0
3rd do	0	5	0
151. Best specimen of Crochet Work	0	15	0
2nd do	0	10	0
3rd do	0	5	0
152. Best specimen of Knitting	0	15	0
2nd do	0	10	0
3rd do	0	5	0
153. Best specimen of Fancy Netting	0	15	0
2nd do	0	10	0
3rd do	0	5	0
154. Best specimen of Fancy Bark work	0	10	0
2nd do	0	5	0
155. Best specimen of Beed Work	0	10	0
2nd do	0	5	0
156. Best specimen of Fancy Work of any description not above specified	0	15	0
2nd do	0	10	0
3rd do	0	5	0
157. Best specimen of Wax Work	1	0	0
2nd do	0	10	0
3rd do	0	5	0
158. Best display of Artificial Flowers (in Cambric, Paper, &c.)	0	10	0
2nd do	0	5	0
159. Best specimen of Ornamental Leather Work	0	10	0
2nd do	0	5	0

MISCELLANEOUS.

160. Best Bark Canoe with Paddles	1	0	0
2nd do	0	10	0
161. Best Pair of Snow Shoes	0	10	0
2nd do	0	5	0
162. Best Collection of Stuffed Quadrupeds natives of Canada	1	10	0
163. Best collection of Stuffed Birds, natives of Canada	1	5	0
164. Best collection of Preserved Insects, natives of Canada	1	0	0
165. Best collection of Fishing Tackle	1	0	0
166. Best single specimen of do	0	10	0
2nd do	0	5	0
167. Best collection of Daguerrotypes	1	5	0
2nd do	0	15	0
168. Best single specimen of do.	0	10	0
2nd do	0	5	0
169. Best Phothograph on Paper	1	0	0
2nd do	0	10	0
170. Best Phothograph on Glass or other material	0	15	0
2nd do	0	5	0
171. Best collection of Essences for the Toilet, &c.	0	10	0
172. Best display of Fancy Soap	0	5	0

CLASS IV.

Fine Arts.

SECTION.

1. Best Original and Historical Painting, in Oil, Canadian Subject	2	10	0
2nd do.	1	5	0
2. Best Landscape in Oil, (from nature), Canadian Subject	2	0	0
2nd do	1	0	0
3. Best Original Oil Painting of Animals, grouped or single	1	10	0
2nd do	0	15	0
4. Best Portrait in Oil, (from Life)	2	0	0
2nd do.	1	0	0
5. Best Original Painting in Oil of Fruit or Flowers	1	10	0
2nd do.	0	15	0
6. Best Landscape in Water Colors, Canadian Subject	1	5	0
2nd do.	0	15	0
7. Best Miniature or other Portrait (from life) in water colors	1	0	0
2nd do.	0	10	0
7. Best Water Color Piece of any other subject (original or from Nature)	1	0	0
2nd do.	0	10	0
3rd do.	0	5	0

8. Best Piece of Statuary, (or Model), Original. 2 10 0
2nd do. . . . 1 5 0
9. Best Piece of Sculpture, (or Model) in alto or bass relief, original. . 1 10 0
2nd do. . . . 0 15 0
10. Best Specimen of Artistic Bronze, (or other metal in imitation of Bronze) original. 2 0 0
2nd do. . . . 1 0 0

CLASS V.
HORTICULTURAL PRODUCTS.

Bouquets, Wreaths, &c.

SECTION.
1. For the two best large vase Bouquets,
1st premium, ... 0 15 0
2nd do 0 7 6
3rd do 0 5 0
2. For the best pair side table or fan Bouquets,
1st premium, ... 0 7 6
2nd do 0 5 0
3. Floral Design—1st premium, . . 1 0 0
2nd do . . . 0 15 0
3rd do . . . 0 7 6
4. Wreaths—1st premium, . . . 0 7 6
2nd do 0 5 0
5. Best garland of 30 feet—1st premium, 0 15 0
2nd do . 0 10 0
6. Stone plants—Best collection, . 1 10 0
2nd best . . . 1 0 0
7. Green-House plants—Best collection 2 10 0
2nd best . . 1 15 0
3rd do . . 1 0 0
8. For the best two plants not grown in green-house, ... 0 7 6
9. For the best Herbarium containing dried spicimens of indigenous plants, 1 0 0

Flowers.

10. Annuals—For the greatest variety,
1st premium, . . 0 10 0
2nd do . . 0 7 6
3rd do . . 0 5 0
11. Biennials—For the greatest variety,
1st premium, . . 0 7 6
2nd do . . 0 5 0
12. Cockscombs—For the best six,
1st premium, . . 0 5 0
2nd do . . 0 2 6
13. Stocks—For the best collection,
1st premium, . . 0 5 0
2nd do . . 0 2 6
14. Salpiglossis—For the best collection,
1st premium, . . 0 5 0
2nd do . . 0 2 6
15. Hollyhocks—For the best dozen sorts,
1st premium, . . 0 7 6
2nd do . . 0 5 0
3rd do . . 0 2 6
16. Petunias—For the best collection,
1st premium, . . 0 7 6
2nd do . . 0 5 0
3rd do . . 0 2 6
17. Pansies—For the best dozen distinct blooms, one of each,
1st premium, . 0 7 6
2nd do . . 0 5 0
3rd do . . 0 2 6
18. For the best collection,
1st premium, . . 0 5 0
2nd do . . 0 2 6
19. Asters—For the best 30 distinct sorts, one of each,
1st premium, . . 0 7 6
2nd do . . 0 5 0
3rd do . . 0 2 6
20. For the best collection, . 0 5 0
2nd do . . 0 2 6
21. Phlox Perennial—For the best collection, named,
1st premium, . . 0 5 0
2nd do . . 0 2 6
22. Phlox Annual—For the best collection, named,
1st premium, . . 0 5 0
2nd do . . 0 2 6
23. Balsams—For the best collection,
1st premium, . . 0 7 6
2nd do . . 0 5 0
24. Verbenas—For the greatest and best variety,
1st premium, . . 0 7 6
2nd do . . 0 5 0
3rd do . . 0 2 6
25. For the best dozen named, one bloom of each, . . . 0 5 0
2nd do . . 0 2 6
26. Dahlias—For the best 18 dissimilar blooms named, one of each,
1st premium, . . 1 0 0
2nd do . . 0 15 0
3rd do . . 0 10 0
4th do . . 0 5 0
27. For the best 12 dissimilar blooms named, one of each,
1st premium, . . 0 15 0
2nd do . . 0 10 0
28. For the best 6 dissimilar blooms named, one of each,
1st premium, . . 0 7 6
2nd do . . 0 5 0
29. Perpetual Roses—For the best collection of cut roses, named,
1st premium, . . 0 10 0
2nd do . . 0 7 6
3rd do . . 0 5 0
30. Herbaceous plants—For the best collection, named,
1st premium, . . 0 10 0
2nd do . . 0 5 0

Fruit.

31. Plums—For the largest collection of best flavored,
1st premium, . . 0 15 0
2nd do . . 0 10 0
3rd do . . 0 5 0
32. For the best seedling plum, never shown before,
1st premium, . . 0 7 6
33. Best collection of seedling plums,
1st premium, . . 0 10 0
2nd do . . 0 5 0
34. Peaches—Best collection raised under glass, 1st premium, . 0 10 0
2nd do . . 0 5 0
35. Best named collection, of open culture,
1st premium, . . 0 7 6
2nd do . . 0 5 0
3rd do . . 0 2 6
36. Apples—For the best named collection, not less than 20 varieties and 6 of each,
1st premium, . . 4 0 0
2nd do . . 2 10 0
3rd do . . 1 5 0
37. For the best collection, not less than 12 sorts and six of each, . . . 1 5 0
2nd do . . 0 15 0
38. For the best seedling apple, not shown before, . . 0 10 0
39. Pears—For the best named collection,
1st premium, . . 1 0 0
2nd do . . 0 10 0
3rd do . . 0 5 0
40. Nectarines—Best collection,
1st premium, . . 0 7 6
41. Grapes—For the best display raised under glass,
1st premium, . . 1 0 0
2nd do . . 0 15 0
42. For the 2 heaviest ripe bunches grown in open culture,
1st premium, . . 0 15 0
2nd do . . 0 10 0
43. For the best heaviest and ripe bunches of black grapes, grown under glass,
1st premium, . . 0 15 0
2nd do . . 0 7 6
44. For the 2 heaviest and best ripe bunches white grapes, grown under glass,
1st premium, . . 0 15 0
2nd do . . 0 7 6
45. Fruit—For the best basket of various sorts,
1st premium, . . 1 0 0
2nd do . . 0 10 0
46. Melons—For the 2 best and richest flavored,
1st premium, . . 0 15 0
2nd do . . 0 7 6
3rd do . . 0 5 0
47. For the 2 best water melons,
1st premium, . . 0 10 0
2nd do . . 0 5 0

Vegetables.

48. Cabbage—For the 2 best winter varieties,
1st premium, . . 0 10 0
2nd do . . 0 5 0
49. Summer cabbages,
1st premium, . . 0 10 0
2nd do . . 0 5 0
50. Cauliflower—For the 4 best heads,
1st premium, . . 0 10 0
2nd do . . 0 7 6
3rd do . . 0 5 0
51. Brocoli—For the 3 best heads,
1st premium, . . 0 10 0
2nd do . . 0 5 0
52. Celery—For the best solid blanched, not less than 6 heads,
1st premium, . . 0 7 6
2nd do . . 0 5 0
53. Turnips—For the best 6 sorts,
1st premium, . . 0 7 6
2nd do . . 0 5 0
54. Beets—For the best 6 roots, with the leaves entire,
1st premium, . . 0 7 6
2nd do . . 0 5 0
55. Tomatoes—For the best 12,
1st premium, . . 0 7 6
2nd do . . 0 5 0
56. Carrots—For the best 12 for table,
1st premium, . . 0 7 6
2nd do . . 0 5 0
57. Parsnips—For the best 12 for table,
1st premium, . . 0 5 0
2nd do . . 0 2 6
58. Onions—For the best collection of different sorts, not less than 12 of each,
1st premium, . . 0 10 0
2nd do . . 0 5 0
3rd do . . 0 2 6
59. Egg Plants—For the best collection, . 0 5 0
60. Salsify—For the best 12 roots, . 0 5 0
61. Squashes—For the 2 best Canada,
1st premium, . . 0 7 6
2nd do . . 0 5 0
62. Pumpkins—For the 2 heaviest,
1st premium, . . 0 7 6
2nd do . . 0 5 0
63. Vegetable Marrow—For the 2 best specimens,
1st premium, . . 0 5 0
2nd do . . 0 2 6
64. Vegetables—For the best display and greatest variety, not more than 2 specimens of each,
1st premium, . . 1 0 0
2nd do . . 0 10 0
3rd do . . 0 7 6

CLASS VI.

Poultry and Singing Birds.

SECTION.

1.	The best Trio of Cochin China, or Shanghae of any colour,	£2	10	0
	2nd do	1	5	0
	3rd do	0	10	0
	4th do Certificate of Merit			
2.	The best Trio of Bramah Pootra,	1	5	0
	2nd do	0	10	0
	3rd do	0	5	0
	4th do Certificate of Merit			
3.	The best Trio of Buff Shanghaes,	1	5	0
	2nd do	0	10	0
	3rd do	0	5	0
	4th do Certificate of Merit			
4.	The best Trio of White Shanghaes	1	5	0
	2nd do	0	10	0
	3rd do	0	5	0
	4th do Certificate of Merit			
5.	The best Trio of Black Shanghaes,	1	5	0
	2nd do	0	10	0
	3rd do	0	5	0
	4th do Certificate of Merit			
6.	The best Trio of Grey Shanghaes,	1	5	0
	2nd do	0	15	0
	3rd do	0	5	0
	4th do Certificate of Merit			
7.	The best Trio of Black Spanish,	1	5	0
	2nd do	0	10	0
	3rd do	0	5	0
	4th do Certificate of Merit			
8.	The best Trio of Dorkings,	1	5	0
	2nd do	0	10	0
	3rd do	0	5	0
	4th do Certificate of Merit			
9.	The best Trio of Golden Polands,	0	15	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
10.	The best Trio of Silver Polands,	0	15	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
11.	The best Trio of Black or White Polands,	0	15	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
12.	The best Trio of Game,	0	15	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
13.	The best Trio of Frizzled,	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
14.	The best Trio of Seabright Bantams,	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
15.	The best Trio of Black Bantams,	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
16.	The best Trio of White Bantams,	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
17.	The best collection of Fancy fowls,	0	10	0
	2nd do	0	5	0
18.	The best collection of Canadian fowls,	0	10	0
	2nd do	0	5	0

Ducks.

19.	The best Pair of Muscovy Ducks,	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
20.	The best Pair of Aylesbury Ducks,	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
21.	The best Pair of Common Ducks,	0	5	0
	2nd do	0	2	6

Geese.

22.	The best Pair of Bremen Geese,	0	10	0
	2nd do	0	5	0
23.	The best Pair of Chinese Geess,	0	10	0
	2nd do	0	5	0
24.	The best Pair of Toulouse Geese,	0	10	0
	2nd do	0	5	0

Turkeys.

25.	The best Pair of Turkeys,	0	10	0
	2nd do	0	5	0

26.	The best Pair of Pea fowl,	0	10	0
	2nd do Certificate of Merit			
27.	The best Pair of Guinea fowl,	0	5	0
	2nd do Certificate of Merit			

Pigeons.

28.	The best Pair of Pouters,	0	5	0
29.	The best Pair of Carriers,	0	5	0
30.	The best Pair of Fantails,	0	5	0
31.	The best Pair of Tumblers	0	5	0
32.	The best collection of Fancy Pigeons	0	5	0
	2nd do Certificate of Merit			
33.	The best collection of Lop Eared Rabbits	0	5	0
	3nd do Certificate of Merit			
34.	The best Parrot	0	5	0
	2nd do Certificate of Merit			

Singing Birds.

35.	The best Pair of Long Breed Canaries	0	10	0
	2nd do	0	4	0
	3rd do Certificate of Merit			
36.	The best Cock Canary	0	5	0
	2nd do	0	2	6
	3rd do Certificate of Merit			
37.	The best Pair of Green Canaries	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
38.	The best collection of Canaries	0	5	0
	2nd do	0	2	6
	3rd do Certificate of Merit			
39.	The best English Blackbird	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
40.	The best Linnet	0	10	5
	2nd do	0	5	0
	3rd do Certificate of Merit			
41.	The best Thrush	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
42.	The best Goldfinch	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
43.	The best Skylark	0	10	0
	2nd do	0	5	0
	3rd do Certificate of Merit			
44.	The Best Mule Goldfinch	0	5	0
45.	The Best Mule Linnet	0	5	0
46.	The Best collection of Canadian Birds	0	5	0
	2nd do Certificate of Merit			

SPECIAL PRIZES.

British American Land Company's Prizes for 1854.

For the Best Bull not over 4 years old, owned in Lower Canada, and to be kept there for the next 12 months.	£9	0	0
For the best 12 minots of Spring wheat grown in Lower Canada.	12	10	0
For the best 10 do. of Peas, do. do.	7	10	0
For the best 10 do. of Oats, do. do.	5	0	0

The last three Prizes to be awarded only to the actual growers of the wheat, Peas, and Oats. The grain to be given up to, and become the property of the Association, for distribution.

The Baron of Longueuil, offers a Special Prize, for the best Hereford Bull of any age, that has served Cows in Canada East for the present season 10 0 0

Entries to be specially made for the above Prizes, in the same manner as for Prizes offered by the Association.

GENERAL REGULATIONS.

1. Members of the Association may exhibit free of entry money two Lots, under any section.
2. Members shall pay on each lot exceeding two in one section, and non-Members on all lots 1s. 3d.
3. No premium to be awarded unless the object exhibited be considered worthy of it, even though it should be the best of its kind on Exhibition.
4. *Discretionary Prizes*, may be awarded to other Articles, not specified in the Prize List, should such Articles be considered worthy thereof.
5. No single Article or collection of Articles, to receive more than one Prize.
6. Whenever a Prize is awarded to a "collection" or "display" of Articles of any particular kind, the same Exhibitor will not be allowed to compete for any Prize that may be offered for single Articles of the same description.

Poultry and Singing Birds.

1. Any fine specimen, where there is no competition may receive, an honorary premium, optional with the Executive Committee.
2. Cages will be furnished for the display of Poultry for Exhibition, or for Sale.
3. No Specimen can take 2 Prizes.
4. Food will be provided by the Society.
5. Poultry, and Singing Birds must be on the ground at 8 o'clock, on the morning of Wednesday the 13th. Judges will commence their inspection at 10 o'clock. The Yard will be open to the public at one o'clock.

Certificates of Entry.

1. All lots must be intimated by a Certificate of Entry, addressed to the Secretary of the Association Wm. Evans Esq., Montreal, or to J. R. Eckart Esq. Secretary of the Local Committee, Quebec.
2. All Entries must be completed and lodged with the Secretary not later than Thursday 10th August
3. No Certificate of Entry will be received without the entrance money.
4. Admission Orders to the Show-Yard will be given when the Certificates of Entry are lodged.

Placing and Judging Industrial Products.

1. The Show Ground will be open for the reception of Industrial Products on Monday the 11th September, and all articles must be placed by 12 o'clock on Tuesday 12th. No article will be admitted without an Admission Order, and the different articles must be placed in their respective sections, according to the Classification in the Premium List.
2. A separate space will be reserved for Exhibitors who are desirous of shewing a general collection. A moderate charge will be made according to the ground required, the extent of which must be intimated to the Secretary on or before 10th August. No Exhibitor will be entitld to this privilege who is not a competitor.
3. The Judges will commence their inspection at 12 o'clock on the 12th of September, (Tuesday,) and they will resume it at 7, A. M., on the following morning.
4. The yard will be open to the public, at one o'clock on Wednesday 13th.
5. All articles entered must remain on the ground till Friday, 15th.

N.B.—These Regulations will be strictly adhered to.

By Order of the Board,

WM. EVANS, *Secretary.*

Montreal, 24th May, 1854.

NOTICE

IS hereby given to the Censitaires in the Seigniories of Lauzon, Sillery, Notre-Dame des Anges, St.-Gabriel, Belair, Batiscan, Cap de la Magdeleine and Laprairie and to those in the Fiefs and Arrière-Fiefs, belonging to Her Majesty, situate in the City of Quebec, the Town of Three-Rivers and their Banlieues, or in any other part of Lower Canada, that His Excellency the Administrator of the Government, desiring to facilitate the change of tenure in these Seigniories and Fiefs, has directed, by and with the advise of His Council, that any purchaser, who within one month from the date of his purchase, shall make application and commute the tenure of the property acquired, in conformity to the Provincial Statute, 10 & 11 Vict. Ch. 111, will obtain a remission of the Lods and Ventes due upon his purchase, provided he pays cash the indemnity fixed by law, or at least twenty-five pounds, if the property is situated within the City and Banlieue of Quebec; and twelve pounds ten shillings, if out of these localities, when such indemnity exceeds these respective sums.

A. N. MORIN,
Commissioner of Crown Lands.

Crown Lands Office, Quebec, 29th May, 1854. } 6m 1 July

NOTICE TO FARMERS.

THE MUTUAL FIRE INSURANCE COMPANY of the COUNTY OF MONTREAL, insures the properties of farmers in Lower Canada, at 5s. for £100 currency, for 3 years, &c.

Apply at the office, *St. Sacrament Street*, Montreal; to the Agents in the Country; or to the undersigned Directors:—

Wm. Macdonald,	Esq.,	President, Lachine.
B. H. Le Moine,	"	Montreal
Edward Quin,	"	Longue Pointe.
F. M. Valois,	"	Pointe Claire.
John Dods,	"	Petite Cote.
G. G. Gaucher,	"	Ste. Genevieve.
Frs. Quenneville,	"	St. Laurent.
Joseph Laporte,	"	Pointe-aux-Trembles.

P. L. LE TOURNEUX,
Secretary and Treasurer.

Montreal, 1st July, 1854.

SIR CHARLES NAPIER,

IMPORTED SHORT HORN DURHAM BULL.

THE property of Mr. Ralph Wade, Jr., near Cobourg, C. W., will serve Cows this season, 1854; thorough bred Cows at Ten Pounds, others at Two Pounds Ten Shillings each P. P.

Calved March, 1853, bred by J. M. Hopper, Esq., Middlesbro'-on-Tees, Yorkshire, England: got by Belleville, (6778), d. Polly, by Belleville (6778), g. d. Madeline, by Newham (4503), g. g. d. Ganymede, by Uptaker (5334.), g. g. g. d. Garland, by Matchem (2281), g. g. g. g. d. by Fitz Remus (2025), g. g. g. g. g. d. by Cato (119), g. g. g. g. g. g. by Whitworth, (695), g. g. g. g. g. g. g. d. bought of Mr. Mason, of Chilton.

1st June, 1854.

SCHOOL REQUISITES.

PAPER, SLATES, SLATE PENCILS, MAPS, ATLASSES, GLOBES, &c., in great variety, for Sale, (Wholesale,) on the most reasonable terms, by

H. RAMSAY.

RECENTLY PUBLISHED.

COMPLETE in two volumes Royal 8vo., The FARMER'S GUIDE to SCIENTIFIC and PRACTICAL AGRICULTURE. Alias the new and only correct edition of "STEPHENS'S BOOK of the FARM." By Henry Stephens, F.R.S., of Edinburgh. With an American Appendix, by J. P. Norton, Professor of Scientific Agriculture in Yale College, New Haven.

LETTER FROM MR. STEPHENS.

"REDBRAE COTTAGE, EDINBURGH, Sept. 30, 1851.

"MESSRS. LEONARD SCOTT & Co.,

"Gentlemen—I beg to say that your '*Farmer's Guide*' is the only genuine edition published in the United States of America of my work the '*Book of the Farm.*' The edition circulating at present in the States under the title of the 'Book of the Farm' is taken from the first edition of my work, written ten years ago, which, in my second edition, I entirely remodelled, and in great part rewrote, adopting all the more recent improvements in the practice of agriculture suggested by scientific experiment, and making it, in effect, quite a new book.

"I am, Sirs, your obedient Servant,
"HENRY STEPHENS.

"This work embraces every subject of importance connected with Agriculture in all its various branches, both theoretical and practical. Its clear and copious details, the fulness and accuracy of its formation, the completeness of every illustration, have, in an agricultural work on practice, never been equalled." It is arranged under four separate heads, represented by the four seasons of the year—Winter, Spring, Summer, and Autumn—and the notes of Professor Norton are appended in the same order, adding greatly to the value of the work by adapting it to the soil, climate, growth, &c., of this country. The united labors of two such distinguished writers constitute this the most complete and valuable agricultural work ever issued from the press. It comprises two large royal 8vo. volumes, and contains 1600 pages, besides 14 splendid steel engravings, and about 600 engravings on wood. The latter illustrates almost every implement of husbandry now in use: the various methods of plowing, planting, &c., &c.; and the former the domestic animals, the farmsteading, &c. The work is elegantly printed on thick white paper, from the English stereotype plates, and neatly bound in emblematic gilt muslin, price $6; in leather, $6 50; in paper covers, $5.

LEONARD SCOTT & CO.,
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RAMSAY'S QUARTER DOLLAR ATLAS, Quarto size, containing 12 Outlined Maps of 1st Eastern Hemisphire, 2nd Western Hemisphere, 3rd Europe, 4th Asia, 5th Africa, 6th North America, 7th South America, 8th Canada, 9th England, 10th Scotland 11th Ireland, 12th Palestine.

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The Press, without a dissenting voice, has expressed an unqualified approval of this work. From the ability with which it is written, as well as its remarkable cheapness, the Publisher hopes it will come into general use.

PRIZE SCHOOL BOOKS.

THE Subscriber obtained Diplomas at the Provincial Exhibitions held at Hamilton and Montreal in 1853, for "the Best Collection of School Books printed and bound in Canada for the use of Common and Grammar Schools." Among these books will be found

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Printed from new stereotype plates, on clear paper, and substantially bound. They are page for page with other editions in use in Western Canada, and great care has been taken to render them equal in every respect to the samples exhibited at the Provincial Exhibition.

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This series of Latin Classics has been published in cheap form, so as to supersede the use of costly imported books. It consists of Cornelius Nepos, Virgilii Georgica, Cicero de Amicitia, Cicero de Senectute, Ovidii Fasti, Cæsar de Bello Gallico, Q. Curtius, Taciti Agricola, Horatii Carmina. These may be had separately or in two volumes, one of Prose, the other of Poetry.

CHEAP CANADIAN EDITIONS.

Walker's Dictionary, Mavor's, Carpenter's, Webster's, and Catholic Spelling Books; Murray's large and small Grammars; Lennie's do.; Walkinghame's Arithmetic, &c. &c.

NEW SCHOOL BOOKS.

A History of Canada, new edition, 2s.
Do. do. in French, just published, 2s.
A History of Rome, do. 2s.
A History of England, in the Press.
Geography of Canada, do.
Ramsay's Quarter Dollar Atlas, 12 outlined Maps.
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WHOLESALE PAPER WAREHOUSE.

The Subscriber is receiving large additions to his stock of British and Foreign Writing, Drawing and Wrapping Papers, selected during winter by himself in the English, Scotch and French markets. He has also an ample assortment of Account Books, of all sizes and different modes of ruling, English School Books, Bibles, Prayer Books, &c.

Booksellers are invited to inspect the stock of cheap standard literature.

HEW RAMSAY,
St. Francis Xavier St.

Montreal, April 28, 1854.

Montreal: Printed and Published by H. Ramsay, No. 21, St. François Xavier Street.

The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

Vol. II, No. 5, Montreal, September, 1854. Postage Free. Price 2s. per annum, in advance.

The Farmer's Journal.

PROVINCIAL EXHIBITION AT QUEBEC.

We are glad to learn that the Local Committee at Quebec have done all in their power to carry out the arrangements proposed by the Board of Agriculture. The ground upon which the buildings for the Show are placed, comprises a superficies of about 20 acres, situated on the St. Louis Road, overlooking the River St. Lawrence, and within view of the Plains of Abraham. Ample accommodation with good shelter is provided for Horses and Cattle, &c., and perfectly secure buildings for the Industrial portion of the Exhibition. The arrangements it is believed will meet the wants of exhibitors, and prove attractive to visitors. A better situation for such a purpose could not be desired. And nothing is now wanting but a zealous co-operation of all classes to render the Exhibition in every way successful. Articles or Stock designed for the Show will be transported by the Grand Trunk Railroad to Montreal free of charge, and thence to Quebec at half the usual freight.

The Exhibition.— Preparations are every where making for the coming Provincial Exhibition. The City Council last evening made an appropriation of £160 to the Fire Deparment towards the celebration of the Quebec Fire Brigade, to be held on Thursday, the 14th September, when their brethren of the Montreal, St. John's and Portland fire companies will visit this city. Beyond a doubt the City Fathers will be sustained in their vote, by the citizens at large, and as we hear the members of the gallant corps will themselves add double the amount, these is prespect of a grand *fete* a head.— *Quebec Mercury.*

The Board of Agriculture have issued during the past month the following Circular to the Presidents of the different Agricultural Societies throughout the Province. We earnestly hope that these gentlemen will faithfully respond to the call thus made upon them. We have always been of opinion that this Province from the great number of its Local Societies is better adapted than most other countries for the rapid and correct ascertainment of its Agricultural Statistics.

BOARD OF AGRICULTURE.

Montreal, August 15th, 1854.

Sir,—I have the honor to inform you that I am instructed by the Board of Agriculture, to request that you will, in conformity with the Act 16 Vic., Chap. 18, Sec. 7 report to this Board the general state of the crops this year, within the limits of the operation of the Agricultural Society of which you are President, accompanying the same with any other interesting information relating to agriculture, which you may deem proper to offer.

I have the honor to be, Sir, your obedient servant,

Wm. Evans,
Sec'y-Treas. B. of A., L. C.

County of Montreal.—The judges appointed to examine the crops of 1854, have given the premiums to the undermentioned parties.

English Class.

Potatoes.

William Dow, Cote St. Paul,	1st prize,	$8
James Logan, Petite Cote,	2nd	do	7
John Drummond,	do	3rd	do	6

Carrots.

Johnston Thomson, St. Laurent,	1st	do	8
James Logan, Petite Cote,	2nd	do	7
William Boa, St. Laurent,	3rd	do	6

Mangle Wurtzel.

James Allan, Pointe aux Trembles,	1st	do	8
James P. Dawes, Lachine,	2nd	do	6
James Somerville,	do	3rd	do	5

Turnips.

William Boa, St. Laurent,	1st	do	6
David Lochhead, Current St. Mary,	2nd	do	5
James P. Dawes, Lachine,	3rd	do	4

Indian Corn.

Johnston Thomson, St. Laurent,	1st	do	8
Alexander Ogilvie, St. Michel,	2nd	do	6
James Logan,	3rd	do	4

Horse Beans.

James Logan, Petite Cote,	1st	do	6
William Boa, St. Laurent,	2nd	do	5
William Dow, Cote St. Paul,	3rd	do	4

French Canadian Class.

Potatoes.

Edouard P. Rochon, Cote St. Luc,	1st prize	$8
Joseph Dagenais, St. Laurent,	2nd	do	7
Etienne Ladouceur,	do	3rd	do	6

Carrots.

Léon Laporte, Pointe aux Trembles,	1st	do	8
Joseph Laporte,	do	2nd	do	7
Edouard P. Rochon, Cote St. Luc,	3rd	do	6

Mangle Wurtzel.

Joseph Laporte, Pointe aux Trembles,	1st	do	8
Léon Laporte,	do	2nd	do	7
André Langlois,	do	2rd	do	6

Turnips.

No Competition.

Indian Corn.

Joseph Dagenais, St. Laurent, 1st do 8
Joseph Laporte, Pointe aux Trembles, . . 2nd do 6
Léon Laporte, do 3rd do 4

Horse Beans.

Jean Bte. Lecour.

No further Competition.

We direct the attention of our readers to an advertisement of Mr. William Brown's, which appears in another column. He purposes spending a considerable time in Europe on the business of the Firm with which he is connected, and while there, he offers his services on reasonable terms to Agricultural Societies, Farmers, and others desirous of importing Stock, Seeds, Implements, &c. So favourable an opportunity for procuring the services of an experienced and faithful Agent, will doubtless be taken advantage of by many persons in both sections of the Province.

Agreebly to the promise made in our last we lay Mr. Boa's pamphlet before our readers. The copy from which we have printed was one of a large edition published at Fredericton, New Brunswick. In the passage relative to the culture of Turnips a paragraph was inserted by the Editor which the Author, it will be observed, disclaims. Whatever may be the case in the Sister Province it is certain that Mr. Boa is quite right in stating that "no amount of seed or preparation of the ground" will, in the District of Montreal, make the Turnip a *certain* crop.

As the *Farmer's Journal* is extensively used by Teachers in schools we have thought it would be more convient if the Essay was put up in a less ephemeral form. It may be had in either language in pamphlet form. Price 2d.

A History of the late Province of Lower Canada, Parliamentary and Political, from the commencement to the close of its existence as a separate Province—1791 to 1841. By Robert Christie. 5 Vols. Quebec; John Lovell. Montreal; H. Ramsay. 1854.

We congratulate Mr. Christie on his having brought his useful and important work to a close. It forms a perfect store-house of facts, and every important statement of the author is usually verified by official documents. The student of Canadian history could not obtain the information here spread before him without consulting an uncounted number of books in public and private libraries. The sale of this work is, we are glad to hear, not limited to the Province. In England, where an anxiety has lately sprung up for the most detailed information respecting the American Provinces, a demand for it has taken place. Mr. Christie has spared neither expense nor labour in carrying his patriotic undertaking to a conclusion. And we trust the Canadian public will show how highly they appreciate his exertions by speedily purchasing up the whole edition.

The question of the cultivation of Flax and of Hemp is daily becoming more and more important. As respects the latter article, it is being forced upon us by the interruption, by war, of the cultivation of the great vallies of the North of Europe. That of flax has also been forced on us by the high price of wheat, which has caused a more extended cultivation of that grain.

There cannot be a doubt that the extended cultivation of both would be in the highest degree beneficial to Canada, for both the soil and climate are eminently suited to them. Our austere winters have no influence upon annuals, and our warm summers rapidly ripen crops of this kind. The price of labour is very low, and there is every kind of soil, from the deep alluviums of the rivers, for hemp, to the lighter loams, in the uplands, for the flax. It must, however, be observed, that the successful cultivation of either the one or the other, is incompatible with bad or slovenly farming. It must be connected with the regular rotation of crops on the cardinal principle, that no more is to be taken out of the land than is put into it, and that stock must be fed in proportion to tillage.

One very great advantage which this kind of cultivation has is that it neutralizes bad roads, and geographical distances. The produce is so valuable that it will bear transit where scarcely any other produce would. This is not a very material consideration here, as respects hemp, because it could only be grown to advantage on the deep soils which form the banks of our great rivers. This, however, gives us an enormous advantage over the Russians, who have in general to cart their produce several hundred miles to a port. At the present moment the Russians have to cart their Hemp into Prussia, whence they ship for the Russian ports on the Baltic.

These obstructions may not—will not—always exist, but under any circumstances, no country is more favourably situated for competition than we are. In flax there may be some little doubt, from the relative value of labour. But still we do not see why we should not set the low price of land against the high price of labour. The fee simple of an acre of land here costs no more, usually less, than one fourth the annual rent of an acre of equivalent quality in Ulster, while the means of transport are scarcely more costly. With respect to hemp it might be grown solely on alluvial soils, close to the great rivers, and the cost of transport would be the lightest possible. It is quite evident, in every point of view, that, not merely our cultivation would be varied, but that we should have other exports to relieve us from the great fluctuations in the price of timber and flour, on which we have now become almost totally dependant. It is a remark verified by much observation, that flax and hemp almost always go up when flour falls, and *vice versa*.

The latest accounts from England, and when we quote those we quote those of all Europe, represent the price of wheat as very steady. That price is still very high the average being 74s. 8d. against 49s. 4d. for the corresponding week of last year. The *Mark Lane Express* of August 7th, says :—

An opinion as to the probable result of the harvest cannot be safely ventured on, and all we can say on the subject at present is, that, in point of quantity, we think there is a full average of wheat, as well as of spring corn ; wet weather for any length of time might, however, detract from the produce by waste and damage. The crops have been lodged and twisted about, but an interval of dry, settled weather might yet set matters right. We certainly considered the late panic uncalled for, and endeavoured to prove that such was the case; the disposition appears now to be to run to the other extreme, which may be equally dangerous. Every thing must depend on the weather ; should it prove tolerably auspicious we might yet have a good average crop, in which case the range of prices would undoubtedly be much lower during the next twelve months than it has been since the autumn of 1853. Of the provincial markets prices have risen 4s. to 5s. per qr. within the week, and buyers have shown much anxiety to pur-

chase as sellers did last week to realize. Fluctuations about this period are not unusual, but all parties are this season rendered more sensitive than in ordinary times, in consequence of the acknowledged shortness of stocks. A fall from the high rates current the last twelve months was to be expected, and present quotations may be too high if the crops should be moderately well secured; but we are inclined to think that the most total exhaustion of stocks consequent on the exceedingly deficient harvest of 1853 cannot be all at once remedied: hence we do not expect the value of wheat to recede to what may be considered the free-trade level.

NEW WHEAT.—E. Perry & Co. have commenced buying wheat. Samples this year are generally good, and the crop is by no means a short one, the assertion of the *Star* that it is "a total failure," to the contrary notwithstanding. The Messrs. Perry offer 5s 9d per bushel for wheat.—*Cobourg Sun.*

THE TREATY OF RECIPROCITY RATIFIED.

There is no class of the community whose interests will be more affected by the provisions of this Treaty than the Agricultural, and we deem it right therefore to communicate as full details of this important measure as we can procure. It may be necessary to premise that the Treaty having received the sanction of the Congress of the United States, only now awaits the confirmation of the Imperial Parliament, of our own Parliament and that of the Sister Provinces, before it goes into operation. This will doubtless be done on the very earliest opportunity.

The first article of the Treaty gives permission to the Americans to take any kind of fish (except shell fish) along the coasts of British North America, without restrictions, but excluding fishing for shad and salmon in rivers or at their mouths. The same right is given to British fishermen along the American coast from Albemarle Sound, in North Carolina—the 36th degree of north latitude. This limiting of the coast south of that latitude is to prevent the free Negroes and others in Bermuda from entering the bays of the Southern States.

The articles of both countries exempted from all restrictions by the Treaty, being the growth or produce of the British Colonies or the United States, are:—

Grain, flour, and breadstuffs of all kinds; animals of all kinds; fresh, smoked, and salted meats; cotton, wool, seeds and vegetables; undried fruits, dried fruits; fish of all kinds; products of fish, and all other creatures living in the water; poultry, eggs; hides, furs, skins or tails undressed; stone or marble in its crude or unwrought state; slate; butter, cheese, tallow, lard, horns, manures; ores and metals of all kinds; coal, pitch, tar, turpentine, ashes; timber and lumber of all kinds, round, hewed or sawed, unmanufactured, in whole or in part; firewood; plants, shrubs and trees; pelts, wools; fish oil; rice, broom-corn, and bark; gypsum, ground or unground; hewn or wrought or unwrought burr or grindstones; dye stuffs; flax, hemp, and tow, manufactured; unmanufactured tobacco; rags.

A western paper remarks:—

"The extent of the advantages to be conferred by the Treaty, may be estimated from the fact, that for the year ending 30th June, 1853, the total imports of British North America from the U. S. were $13,140,642, and the exports from these colonies to the U. S. were $7,550,718—giving the Americans a balance in their favor for one year under the restrictive system, of $5,589,924. Besides the removal of all Custom House restrictions with respect to the articles enumerated in the Treaty, and all restrictions upon the ordinary Fisheries along the coast of both countries, the navigation of the St. Lawrence, Lake Michigan, and the Canada Canals is to be free to both nations; and the Federal Government of the U. S. promise to employ their influence with the Goverment of the separate States, bordering on the B. N. A. Colonies, to secure for them the free navigation of the States Canals.

We have shown, as above, by the returns of 1853, that the balance of trade has been in favor of the U. S., under our restrictive policy, but it is impossible now to estimate with any approach to accuracy what will be the results under the new arrangements. This, however, is evident, that all, parties rejoice at the consummation of the long pending desire for reciprocity, and that the removal of so much of the restrictions as have heretofore embarrassed our intercourse will open up new channels for trade, and give a healthful impetus to the commerce of both countries."

BUREAU OF AGRICULTURE.

QUEBEC, August 17, 1854.

Patents of Invention.

His Excellency the Governor General has been pleased to grant Letters Patent of Inventions for a period of fourteen years, from the date thereof, to the following persons, viz:

Levi Kowell, of the Township of Ancaster, in the County of Wentworth, Yeoman, for "New and useful improvements in the construction of the Cider Mill and Press." (Dated 2nd February, 1854.)

Benjamin Wait, of Willoughby, in the County of Welland, for "A combination of Machinery for the making of Barrels, Kegs, Tubs, and other Bilge Works." (Dated 6th June, 1854.)

Dally Sellick, of the Town of Prescott, in the County of Grenville, for "A new and useful improvement in the Construction of Churns." (Dated 14th June, 1854.)

Ralph Hoyt, of the City of Hamilton, Machinist, for "An improved Obstetrical Supporter." (Dated 29th June, 1854.)

Joseph Scobell, of the City of Montreal, for "A new and improved method of manufacturing Peat Bog. (Dated 7th June, 1854.)

Richard Dover Chatterton, of the Town of Cobourg, for 'A floating Gangway, Boat, Launch and Life Raft." (Dated, 19th June, 1854.)

THE ROT IN THE POTATO.

To the Editor of the Journal.

SIR,—I have seen a communication in a late number of the *Mark Lane Express*, headed, "How to stop the potatoe Disease," that I think worthy of some notice. The writer recommends early planting by all means—a practice which may be advantageously adopted in Canada as in England. He then says:—"That all early potatoes should be taken up in July, and the late sorts in August, while the tops are quite green, and before the potatoes have arrived at their full growth; that the potatoes, when taken up, should be laid in rows about a hamper, or bushel thick, upon the open ground, and pretty well covered with straw, or other dry material, (not potatoe tops,) and they will generally be found to keep well." He says the potatoes should be left in this state for about two months before they are stored, and that this plan has succeeded with him for seven consecutive years.

I have very little doubt that this plan might succeed, when early planting was adopted. The tubers are never diseased, until the tops first exhibit blight; and I believe it is necessary to separate entirely the tops from the tubers, before the disease commences, or the crop will not be safe. I know by experience that sun drying potatoes, after taking them up, will prevent disease. We cannot expect, of course, that the yield of the crop will be so abundant when taken up before it is at maturity, as it would if allowed to mature; but it is better to secure the fourth of a crop, than to incur the risk of losing the whole.

I have the honor to be, Sir, your very obedient servant,

WM. EVANS.

Cote, St. Paul, August 21, 1854.

THE PRICE OF WHEAT.

The following table which we find in *Hunt's Merchant's Magazine*, is from the minutes kept at the office of the Van Rensselaer Manor, at Albany, where large amounts of rent are payable in wheat, or a cash equivalent, on the 1st of January each year; and as two parties are deeply interested in the price, it is probably the most

reliably correct of any record that can be obtained. There is quite a lesson in these figures—look at them :—

Price of wheat per bushel at Albany, Jan. 1st, for sixty-one years, viz.:

	$ cts.		$ cts.
1793.....	1 75	1824.....	1 25
1794.....	1 00	1825.....	1 00
1795.....	1 37½	1826.....	87½
1796.....	2 00	1827.....	1 00
1797.....	1 50	1828.....	1 00
1798.....	1 25	1829.....	1 75
1799.....	1 81¼	1830.....	1 00
1800.....	1 56¼	1831.....	1 25
1801.....	1 18¾	1732.....	1 25
1802.....	1 00	1833.....	1 25
1803.....	1 12½	1834.....	1 00
1804.....	1 25	1835.....	1 00
1805.....	2 00	1836.....	1 50
1806.....	1 43¾	1837.....	2 25
1807.....	1 37½	1838.....	1 62½
1808.....	1 12½	1839.....	1 75
1809.....	1 00	1840.....	1 12½
1810.....	1 56¼	1841.....	1 00
1811.....	1 75	1842.....	1 25
1812.....	1 87½	1843.....	1 87½
1813.....	2 25	1844.....	2 00
1814.....	1 87½	1845.....	0 93¾
1815.....	1 62½	1846.....	1 18¾
1816.....	1 75	1847.....	1 12½
1817.....	2 25	1848.....	1 31¼
1818.....	1 87½	1849.....	1 18¾
1819.....	1 75	1850.....	1 18½
1820.....	1 00	1851.....	1 12½
1821.....	0 77	1852.....	1 00
1822.....	1 12½	1853.....	1 18½
1823.....	1 25	1854.....	1 75

You will notice that only five times in all these years wheat has been $2 or upwards per bushel, while it has been *seventeen* times at $1 or under—twice at near 75 cts. Only once since 1817 (37 years), to wit, in 1837, has it reached, $2. The average price for the whole period is $1.38. For the last thirty years, it is $1.25, and we give it as a prophecy, which we think may be relied upon, that that will be the price next Jan. Those who are interested may as well make a note of that. The crop of wheat is too good, too widely extended, and the demand for export to Europe or California too limited, and flour speculators too hard-up, too maintain present prices.—*N. Y. Paper.*

THE CURRENCY.

It may be of interest to farmers to be reminded that the Currency Act passed last Session, came into operation on the first of August. The Act makes no actual change in the value of any of our current money. It merely makes the denominations: dollars, cents, and mills, equally legal with those of pounds, shillings, and pence. The following, on the subject, is from the *Montreal Herald* :—

The Act, it will be remembered, was passed after a refusal on the part of the Imperial Government to sanction some acts on the currency, which were previously passed at Quebec. All former currency acts are repealed, and it is enacted that the denomination of money in the currency of this Province shall hereafter be pounds, dollars, shillings, pence, cents, and mills; the pound, shilling, and penny, shall have, respectively, the same proportionate values as they now have. In any agreement or statement as to money, either denomination may be lawfully used. The pound currency is to be of 101 321-1000 grains, Troy of gold, the standard of the United Kingdom; the dollar to be one-fourth of the value. The pound sterling to be £1 4s. 4d., or $4 and 86⅔ cents currency, and to be a legal tender for that amount. Less British gold coins to be also a legal tender for proportionate rates.

Public accounts to be kept in the denominations of coin prescribed by Her Majesty. Accounts may be kept or stated, or agreements made, however, to be legally binding, in either class.

Such silver coins as may be struck at the Royal Mint, of the fineness now fixed by law for the coins of the United Kingdom, and of weights bearing respectively the same proportion to the value to be assigned to such coins in this Province, which the weights of silver coins of the United Kingpom, shall by such names as shall be assigned to them by Her Majesty in her proclamation, declaring them lawful money of this Province, be a legal tender at the rates assigned in such proclamation.

Until otherwise ordered by Royal proclamation, the silver coins of the United Kingdom shall pass current for sums in currency according to the proportion hereinbefore fixed to the sums in sterling, for which they pass current in the United Kingdom, and no other silver coin than those declared so by this act shall be a legal tender for more than £2 10s. currency.

The copper money of the United Kingdom to pass current and be a legal tender to the amount of 1s. currency, and no more, that is to say, the copper penny, two cents; half-penny, one cent; and other subdivisions proportionably. Provided that any copper coins of like weights which Her Majesty may direct to be struck for the purpose shall be a legal tender, at the like rates, to the above-mentioned amount; and Her Majesty may declare by proclamation that the copper coins of the United Kingdom shall not be lawful current money of the Province.

The American Eagle coined before the 1st of July, 1834, is to be a legal tender, and to pass current for $10 35⅞ cents or £2 13s. 4d. currency; coined after that day, but while the same standard of fineness is retained in the United States mint, and weighing 10 dwts. 18 grs. Troy, shall pass current for $10, or £2 10s. cy.; and Gold coins the multiples or halves of the above of the respective dates, to be current for proportionate sums.

Other gold coins may be made current by Her Majesty's proclamation, at rates to be assigned in such proclamation; such rates being proportionate to the quantity of pure gold in such coins, reckoning ninety-two and eight hundred and seventy-seven thousandth parts of grains to one pound currency.

INCOMBUSTIBLE WASH, AND STUCCO WHITE-WASH.

The following preparation has been recommended as of great value, in several of of our exchanges, but appeared originally, we believe, in the *Railroad Journal*. We give it to our readers as we find it. Some of our acquaintances have used it, and value it highly.

The basis for both is lime, which must be first slack with hot water, in a small tub or piggin, and covered, to keep in the steam; it then should be passed, in a fluid form, through a fine sieve, to obtain the flour of the lime. It must be put on with a painter's brush; two coats are best for outside work.

First. To make the fluid for the roof, and other parts of wooden houses, to render them incombustible, and coating for brick-tile, stone-work, and rough-cast, to render them impervious to water, and give them a durable and handsome appearance. The proportions in each receipt are five gallons. Slack your lime as before directed, say six quarts, into which put one quart of clean rock-salt for each gallon of water, to be entirely dissolved by boiling, and skimmed clean; then add to the five gallons one pound of alum, half a pound of copperas, three-fourths of a pound of potash—the last to be gradually added; four quarts of fine sand or hard-wood ashes must also be added; any coloring matter may be mixed in such quantity as to give it the requisite shade. It will look better than paint, and be as lasting as slate. It must be put on hot. Old shingles must be first cleaned with a stiff broom, when this may be applied. It will stop the small leaks, prevent moss from growing, render them incombustible, and last many years.

Second. To make a brilliant stucco white-wash for the buildings, inside and out. Take clean lumps of well-burnt stone-lime; slack the same as before; add one-fourth of a pound of whiting or burnt alum, pulverized, one pound of loaf or other sugar, three pints of rice-flour, made in a very thin and well-boiled paste, starch, or jelly, and one pound clean glue, dissolved in the same manner as cabinet-makers do. This may be applied cold within doors, but warm outside. It will be more brilliant than plaster of Paris, and retain its brilliancy for many years, say from fifty to one hundred. It is superior; nothing equals it. The east end of the President's House, in Washington, is washed with it.

MILK FOR THE PARISIANS.—A most rigid surveillance is being now kept up not only in Paris and the Banlieue, but in all parts of the country from whence the capital

is supplied, over the milk which is forwarded for the consumption of its inhabitants. Thirteen farmers have just been condemned to fines of 100f. and under, and one to eight days' imprisonment, for sending milk mixed with water. The milk undergoes a rigorous examination at the railway stations, and also at the shops of the retail dealers.

THE HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

Berwick-on-Tweed, Aug. 2.

The Highland and Agricultural Society of Scotland is now in its 70th year. It was instituted in 1784, and received a Royal charter in 1787, its objects being comparatively few and of a purely local character. But the exertions of the society, instead of being restricted to the Highlands, were early extended to the lowlands of Scotland, and directed to the promotion of the science and practice of agriculture in all its various branches. In 1834 it received another Royal charter in accordance with its enlarged sphere of operation, and was so successful in its management and results as to become the parent of the Royal Agricultural Society of England and the Royal Agricultural Society of Ireland.

Premiums amounting to upwards of 2,000*l.* are awarded for reports on every subject connected with the improvement and cultivation of the soil and and the rearing and feeding of stock. Encouragement is offered for the management of the dairy, the growth of timber, and useful inventions in agricultural machinery, while the comforts and convenience of the labouring classes are promoted by stimulating proprietors to improve the construction and increase the accomodation of their cottage dwellings.

Besides the great annual and biennial exhibitions of stock and implements held in different parts of Scotland, and open to competitors from all parts of the kingdom, the society has established a system of district shows, opened a college in Edinburgh for the instruction of students in agriculture, appointed a chemical department for analyzing soils, manures, &c., and erected a museum for the reception of model implements, vegetable and mineral specimens, and paintings of prize animals.

In the literary department of the society there are periodical publications of its transactions, monthly lectures and meetings, reports of which are given in the *Quarterly Journal of Agriculture*. To this department of the society's operations Government committed a local inquiry into the agricultural statistics of Roxburgh, Haddington, and Sutherland last year, which has been attended with results of so important a character as to encourage its extension, on a permanent basis, to every other county in Scotland.

The directors of the society having resolved to hold their great show at Berwick-on-Tweed this year, preparations were made for giving to it a more than ordinary character; and so much interest was excited in prospect of the show on the border, that at the last monthly meeting 152 new members were enrolled. Deputations from the English and Irish societies were appointed, and six members composing the Imperial Commission of Agriculture in France, intimated their intention of being present. In prospect of a great gathering, Berwick put itself into readiness in the way of providing accomodation for the strangers, and the town is now so full that as much as two guineas for the week is being paid for a bedroom of very moderate pretensions. The Duke of Hamilton, President of the society, and the directors, occupy the principal hotels, and a large assemblage of the aristocracy are in private apartments. In addition to the attractions of the showyard, balls, bazaars, and dinners are announced, while the railways are pouring in thousands of visitors from both sides of the Tweed.

The showyard has been set off in the Magdalene-fields, an extensive green terrace stretching from the old fortifications eastward to the seaside, and contains 15 acres. It is closely railed in and divided into two compartments—the one for the implements, the other for the stock. The dairy produce, roots, seeds, &c. are under cover, but the cattle and implements are quite exposed. The show of implements was fixed for to-day, the stock is to be exhibited to-morrow. The weather yesterday was very unfavourable, but this morning it improved. At 7 o'clock there was a spirited trial of implements at Castlehill Farm, in the presence of a large concourse of spectators, and at noon the showyard was thrown open to the public at the charge of 1s. The exhibition was a very successful affair. Formerly, the show of implements by this society was nowise remarkable, the competition lying chiefly in the department of stock; but to-day the largest number of implements ever entered was exhibited, the following being the progress of the increase :—

Berwick show in	1841	60 implements.
Edinburgh ditto	1848	310 "
Perth ditto	1851	330 "
Berwick	1854	355 "

Among those shown to-day there were 22 two-horse ploughs for general purposes; four French, or deep-furrow ploughs; four subsoil ploughs, for two horses; three for more, or stony land; three for three or four hourses, five double mouldboard ploughs, two drill paring ploughs, four improvement on and substitute for the common plough in lifting potatoes—a number which shows how earnestly the competition runs in the department of field labour. Among the other implements there were 29 grubbers, and almost an endless variety of harrows, sowing machines, and manuring apparatus. England supplied most of the machinery, but Scotland exhibited well; there were six reaping machines entered, and there seems likely to be a very close competition for this prize. Bell appears with Croskill's patented improvements, and challenges again both the English and American inventions; but the state of the crops does not seem to be such as to afford a favourable apportunity for testing their respective merits.

In the department of extra implements there were 132 entries. Here the inventive faculty in original designs comes most fully into exercise; but the competition in this respect presents few features of a novel or striking description. Improvements on old inventions may be said to be the general characteristic of the show, and these, as was the case at the Exhibition of the Royal Agricultural Society of England, are chiefly by those manufacturers who have made implements of husbandry their study and their business rather than by agricultural mechanics or farmers themselves.

THE CROPS.

Complaints are very general of the shortness of most crops, owing to the long continued drought. In the vicinity of Montreal hay for the most part has been light, and unfortunately for want of rain there will be but little assistance derived by the farmer from the after grass. Oats in many places have turned out well, and we have seen in this neighbourhood several good fields of wheat and barley, but, as a general rule, these crops are light, and the early sown wheat has had its old enemy, the fly, to contend with as well as the drought. Peas generally look well. Potatoes will be a light crop, and there has been less sown than usual. We present our readers with a selection of extracts showing the state of crops over an extended area of this continent.

A CROP THAT IS A CROP.—A gentleman in town has handed us the following extract from a letter from a friend at Bowmanville, C. W.:—

Our crops are pretty good, an average, and nor much more: that is the wheat. Spring crops generally very good. I have over 40 bushels spring wheat per acre. My barns are all full—and I have enough out doors to half fill them again, I think I have

Wheat.....	1300	bushs.
Peas.....	200	do
Oats.....	250	do
Barley.....	300	do
Potatoes.....	1000	do
Carrots.....	3000	do
Turnips	2500	do
From 63 acres.....	8550	do

besides other small matters.

DROUTH.—Perhaps there has not been a time for twenty years, when so large a por-

tion of the country was suffering to the degree it is at present, from drought. Through a large part of Ohio, New York, Vermont, New Hampshire and Maine, we have accounts representing the grass as dried up, and the corn and other late crops severely injured. In Western New York there has been but little rain since June. A narrow belt of country from New Jersey to Boston, nearly parallel with the seaboard, was pretty well supplied with rain till the beginning of August, but even this section is now becoming parched, and vegetation is withering before an unclouded sun.---*Boston Cultivator.*

For the last six weeks we had very warm and dry weather, with occasional heavy showers, accompanied by much thunder and lightning. The weather within the last few days has grown much more temperate; the nights are also quite cool and pleasant. The town, notwithstanding some unaccountable and groundless rumors of the prevalence of Cholera, was never more healthy at this season of the year.

The inhabitants of Bytown are specially favored by the pure and healthy breezes almost constantly blowing from the bosom of the majestic Ottawa. Few emigrants have passed this way: consequently our town is free from disease.

The Crops all through the Townships have a promising appearance.—The Hay Crop has been nearly all saved in excellent order, and Fall Wheat cutting is vigorously going on. Grain and root crops of every kind look well and promise an abundant yield.—*Bytown Paper.*

The Drought in Vermont and New Hampshire is represented to be very destructive to the crops and especially to potatoes and oats. In the Ambonoosuc valley the potatoes were fast drying up, there having been no rain for five or six weeks, in some fields the tops were already black and dried to a crip, and the oats were being cut up for fodder. In Montpelier, the grain, grass, and early potatoes were suffering severely. There were scarcely any potatoes in the hills, and there were also indications of rot. In St. Albans potatoes were held at a dollar a bushel.

In the Eastern townships the drought is still very severe, but not so bad as represented in Vermont. Potatoes and late oats will be very light. We have heard of no signs of potato rot as yet.

The drought continues, and the damage which has been done in many localities is incalculable. Fields of corn have prematurely ripened and withered—potatoes have stopped growing, and are sprouting in the hills—the leaves of trees in many cases have curled and dried—and in some varieties, such as the birch, are turning yellow and falling off. The atmosphere is full of dust, and all nature seems to droop for the want of those precious drops which to the farmer are priceless. The prevailing drought is experienced over a wide extent of territory, and the consequent loss must be reckoned by hundreds of thousands of dollars.

It is said that at Newcastle, the island town at the eastward of Portsmouth, N. H., upon which Fort Constitution stands, the people are entirely destitute of water, and have to resort to the main land for their supplies.

Our files of papers from all sections of the country, including Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York, all the New England States, and many of the Southern States, complain of the severity of the drought. In Indiana and Illinois particularly, the corn crop is very much cut short, fruit is withered on the trees, and garden vegetables turning to dust. The farmers of Madison county, Ia., have held a public meeting to consult on the best manner of economizing their corn so as to prevent a scarcity in that county, which is one of greatest corn regions in the state.

In Pennsylvannia the farmers cannot procure sufficient quantity of water upon their land for their cattle, and often are obliged to drive them great distances to obtain a supply. The Shenango and Neshanock rivers are so nearly dried up that the fish are gathered into close quarters in the puddles.

In Maryland and Virginia it is said that as a general thing the crop of corn will be a failure.—*Boston Journal.*

St. Louis, Aug. 16.—The drought in this state is past all belief. Drovers say that they can neither get grass nor water on the road, and the dust is killing. Corn has risen one-third, and Illinois farmers are here buying corn for their own use—and those, too, who usually make thousands of bushels to sell.

Alleghany Co., (N. Y.) Aug. 16.—This county is ready for the fire it is dried up. I doubt if there is hay enough in this town (Independence) to winter one cow to each family. In Willing it is nearly as bad Potatoes are hardly worth digging, and corn-fields are dry as after a frost. Oats are very short. Pastures none. What shall we do?

From all sections of the country we continue to hear complaints of dry weather. The drought seems to be local, as in some parts the earth is nearly "dried up," while in others immediately adjacent, sufficient rain seems to have fallen. The fact is that we have had no general rains. What has fallen has come down in showers, and where they have descended, crops have not suffered. We found in passing through Courtland county some towns in which abundance of rain has filled some barns with plenty, while in others the grasshoppers and dry weather have almost completely blasted the hope of the farmer. In Chautauque county the case is similar; hay, butter and cheese in consequence are coming in light. Scarcely a ton of hay can be bought in any section at a reasonable price: ten dollars a ton is the lowest mark we have been able to hear of in the country, and the buyer must take it in the field at that. Farmers must of necessity decrease their stock. We see at present no prospect of rain.—*Albany Register.*

HOW MAY WE ESCAPE DROUTH.

To the Editor of the New York Tribune.

The points on which the farmer needs, and may easily obtain, instructions are very numerous. It is not too bold an assertion to say that *no good, practical farmer will allow his crops to suffer largely from drouth.* The remedy is simple and natural. Subsoil plowing accompanied by under draining on wet lands, and even without it on those which are sufficiently dry, is a sure protection against the famine, producing scourge.

A few moments' reflection will convince any man that this must prove an infallible remedy—because we know that there is always the same amount of water in and about the surface of the earth. In winter there is more in the soil than in summer, while in summer that which has been dried out of the soil exists in the atmosphere, being maintained in a vapory condition by the heat resident among its particles. Without this heat, it must immediately contract and become liquid water; and for this reason a cold pitcher robs heat from the vapor of a summer atmosphere and causes it to be deposited in a liquid form. The cold earth, at night, is thus supplied with dew.

On the same principle subsoiling prevents drouth. It opens the *subsoil* for a circulation of air. This subsoil, from its shaded position, is always cool, and hence it takes heat from the moisture of the air permeating it. It acts the part of the cold pitcher. This is the simple, natural reason for the whole action, and any farmer may understand it. But this may be called *book-farming*, so I will give an example of its *practical* character.

I yesterday visited the farm of Prof. Mapes.—The whole country about Newark wears a peculiarly burnt-up appearance, and the dust on the roads was deep, even for New Jersey. I had previously asserted that I knew Mapes's farm to be exempt from the ravages of drought, and truly I found my prediction fully realized. Not a single plant seemed suffering for want of moisture.

One crop of Corn deserves especial notice from its absolute magnificence. Notwithstanding the fact that it is growing on the north-western slope of hill, and has not been visited by rain for weeks, yet it stands, apparently regardless of all untoward circumstances; and although, from its location and unfavorable season, one would think forty bushels per acre a large yield, it will without doubt, be near one hundred bushels per acre.

If this is not *practical farming*, I would ask some follower of the grandfather system to tell us what is.

GEORGE E. WARRING, JR.

New York, Aug. 24, 1854.

From every direction, North, South, East and West, come to us mournful stories of the diminution of crops by the drought, and in too many instances of their total destruction from the running of fires in the woods. We began cutting our extracts from our exchanges descriptive of these evils, but we found we should soon fill our paper, and desisted. Our private advices tell of a tremendous fire in the neighbourhood of Huntingdon, another in the vicinity of St. Timothee, and a third in rear of Cornwall, destroying trees and fences, crops, and in some cases barns and outhouses with their contents. There is every reason to apprehend a famine, or something like it. Crops of every kind will not be over a third to a half of an average, and there is nothing for cattle to feed on, either to give milk or fatten for the butchers.—*Montreal Paper.*

The *N. Y. Tribune* takes a gloomy view of the harvest prospects of the New England States and New York. The great drought appears to exted over them all.

We have heard experienced farmers observe, that though they have often heard of dry seasons towards harvest, they never knew such seasons to turn out badly on the whole. For the superior quality of the hay made up for deficiency in the quality of the straw, and a superiority of grain from its loss of bulk.

In this climate, however, it is altogether deficient. From the shortness of the seasons, and, in a great measure, from the want of deep tillage, and loosening of the soil, the roots of the plants are very superficial, and they are easily withered, and from the great power of the sun, the grain does not fill, but shrivels—and, of course, gives a light yield, and more bran than flour.

The potatoes are, so far, turning out very well, and should rain come on, of which there is every prospect, an abundant crop may be expected. The early varieties, which are all that has yet come into market, are of a very superior quality.—*Montreal Paper.*

We understand that the drought is very severe in Northern Massachusetts. At Fitchburg and vicinity every thing is parched and great damage done to the crops. The river is very low and the want of water causes the greatest inconvenience. In some parts of the town there have been destructive fires, and the farmers have had to work very hard in beating off the flames. At Ashburnham Junction, the fire got into a pile of wood belonging to the railway company, and several hundred cords were destroyed.—*Boston Traveller.*

SELF-REGULATING WINDMILL.—Daniel Halliday, a mechanic in an obscure country village, Ellington, Connecticut, has done what the world of mechanics has sought for in vain for centuries. He has invented and put in successful operation a windmill with self-furling sails. The mill built by him has five feet wings, that is, the diameter of the wind-wheel is ten feet, and has been in operation for six months without a hand being touched to it to regulate the sails. It runs fifteen days at one time without stopping day or night, and it has stood through some hard gales; the beauty of the improvement is, that it does stand still when the wind rages, hardest, with the edge of the wings to the wind, and as it lulls they gradually resume their position for a gentle breeze. It is so contrived that nothing but a squall of great severity falling upon it without a moment's warning can produce damage.

The mill mentioned has drawn water from a well twenty-eight feet deep, one hundred feet distant, and forced it into a small reservoir in the upper part of the barn, sufficient for all farm purposes, garden irrigation, and "lots to spare." The cost of such mill will be $50; and the pumps and pipes about $25. It is elevated on a single oak post a foot square, the turn circle being supported by iron braces. The wings are made of one longitudinal iron bar, through which run small rods: upon these rods, narrow boards half an inch thick are fitted, holes being bored through from edge to edge, and screwed by nuts on the ends of the rods. This makes strong light sails, but as will be seen are fixtures not to be furled or clewed up; but they are thrown up edge to the wind by a very ingenious and simple arrangement of the machinery, which obviates the great objection to windmills for farm use; the necessity of constant supervision of the sails to suit the wind.—*Ham. Gazette.*

HARVEST PROSPECTS THROUGHOUT ENGLAND.

During the last six weeks we have had the opportunity of observing the crops in the greater part of England, that is, from Liverpool through the counties of Chester, Salop, Hereford, Gloucester, Somerset and Devon, to Plymouth; from Exeter, through Dorsetshire, Hampshire, Suffolk, and Kent, to the Straits of Dover; all up the Valley of the Thames, through Middlesex, Surrey, Buckinghamshire, Berkshire, Oxfordshire, and back again to Liverpool, through Essex, Cambridge, Northamptonshire, Leicestershire, Derbyshire, Staffordshire, and Cheshire. Our impression is that the hay crop is everywhere very light, and that the spring corn was vesy backward, although it has generally improved since the recent rains, and that wheat is very fair in all parts of the kingdom, and more than usually good in Cambridgeshire, and two or three other districts. With the exception of the Isle of Ely, where the wheat crop was so heavy as to be in danger from any great of fall rain, we believe that the recent rains will have done much more good than harm, for the straw, of the wheat is not rank in any part of the kingdom that we have seen, and the grain is not sufficiently advanced to be easily knocked down. Supposing the weather of the present month to be moderately favorable, we belive that there will be a good average crop of wheat, if not of all kinds of grains, through the several counties mentioned above. The potatoes everywhere look well, and the late rains have been extremely favourable to the newly-sown turnips, and the after-grass of the meadows.—*Liverpool Times.*

Among the items of knowledge which the past season has either taught for the first time, or confirmed by additional evidence, we would name this—that ammonia can very certainly be prevented from escaping from heaps of horse or other manure by sprinkling thereon some gypsum, and a solution of sulphoric acid. Having no convenient way of protecting the manure from the horse stable, and confident that all the ammonia which our nostrils informed us was making its escape from the manure heap near the stable, was so much dead loss to us, we put a small keg of plaster into the stable so as to be convenient whenever the smell or any other circumstance should remind us of our duty to our fertilizing treasures. Two or three times a week, or when the escaping ammonia assaulted our nostrils, we sprinkled a handful or two of plaster over the manure heap, and generally in the course of the same day we scattered over it about a pailful of water having mixed with it about a fourth part of a teacupful of sulphuric acid or vitriol. After these applications we could detect no such smell as before, and concluded, therefore, that the ammonia had in some way been fixed so that it could no longer make its escape. Agricultural chemists would call this, I suppose, changing the carbonate of ammonia into the suphate. Whatever it may be called in chemical phraseology, we are satisfied that it is an effectual mode of preventing evaporation and loss, which affect equally the farmer's crops and pockets. If some of our readers would try the experiment of applying plaster and water slightly acidulated with oil of vitriol, we should probably hear from them, some year or two hence, such favorable reports of the practice as would persuade all, save the laziest, to adopt it.—*Country Gentleman.*

THE CULTURE OF ONIONS.

MR. EDITOR:—My success in raising onions, has led many to ask "how is it done." They say the maggot and the large brown worm have been so destructive that they have done trying to raise that valuable vegetable. In answer to such inquiries permit me to reply.

There are at least six kinds of onions. But they are of the same species. The leek, the garlick, the hill-onion, the top-onion, the red and the silver onions. From the fact, that whenever onions have been found growing wild, they are always found most plentifully and most flourishing in muck soil, I have taken the hint to prepare my

onion bed with a plentiful supply of muck first put into the hog-yard, and then well mixed with common soil. If I plow the ground, I take care not to have the ground too light. As the roots of onions do not go down deep, they will not stand drought so well in light as in more compact soil. Besides onions bottom better where the ground has been rotted or hard trodden.

I cultivate the "top-onion" for several reasons. All black seed onions are slow to come up. The weeds get the start of them and then you are obliged to get down on your hands and knees and weed with your fingers. Then warm weather has come on and the maggot fly commences with the young and destroys it. And the black seed onion is so late that the black worm is just in season to bite off the tender stalk, and so devours the onion.

But plant the "top onion" seed, which is already a little onion, you may get them well growing in April. They come up immediately, so that you may hoe them twice or more before weeds appears. And before maggot or worm time, the onion has got the ground by possession. When the weeds appear, you may march right along with your hoe and go over with a bed large enough for twenty bushel, before breakfast.

The reason why maggots have ever destroyed the top onion is, that they were planted too late. They should be planted as soon as the snow and frost disappears. Some put out in the fall and do well. I have never tried it. The top onions on good ground are large as any. They are sweeter and more juicy than other varieties, and can be raised as easy as potatoes.

I have given away and sold seed for several years; and when the experiment has been fair, all have been satisfied. I intend to give away and sell before April, *twelve bushels of seed*. S. MORGAN.

Bristol, Vt., Jan. 13, 1854.

Middlebury Register.

HOW TO PLANT, CUCUMBERS, MELONS AND SQUASHES,

To avoid destruction by Bugs.

As the cost of seed is trifling, we have for the past few years always succeeded in getting good vines by the following process. Instead of planting a few seeds in hills at the distance they would ultimately be required to grow, we have put in a large quantity over the whole ground; so that at first we had a hundred plants where only one was needed. Sometimes we have had a plant come up on every two inches over the whole bed.

As fast as the expanding leaves of the vine *interfered with each other* we cut off the *weaker* ones with a pair of shears, so as not to disturb the roots of those remaining. The "bugs" have always materially assisted in the thinning process, but we have never failed to find twice or thrice the needed number of plants entirely untouched. When beyond the reach of danger from insects, all the weaker plants are removed; and a solitary vine left here and there has been enough to cover the ground.

The same ground will yield much better, by having the vines at equal distances from each other, than if two or three are left together in the same hill, since the roots have more room to grow, and they find a greater amount of nourishment when thus isolated. The fruit will also be more solid and of better quality.

It should also be remembered that air and light are essential to the growth and maturity of the fruit; and it is better to occasionally cut out a thrifty plant, than that the ground be too densely covered. Just vines enough to thinly cover the ground, will produce better than double this number.—*American Agriculturist.*

YELLOW BUTTER.

From the Philndelphia Dollar Newspaper.

So much has been written of late upon the mode of making 'yellow butter,' I am induced to submit my opinion, founded on ten years experience in the business, to the readers of the *Newspaper*, hoping that it may not be uninteresting. It has been suggested by some, that in order to have nice yellow butter in winter, it is necessary to mix the yolk of eggs with the cream before churning. In order to satisfy my curiosity on this subject, I tried this receipt, and, I need scarcely add, that it proved a perfect failure, and I doubt not that all other methods of imparting the yellow tint, by artificial means, without injuring the taste, would prove equally unsuccessful. I am satisfied, by experience, that, with proper management, yellow butter can be made in winter without the application of any foreign substance. My plan is as follows: The milk is kept in a room where it will not freeze, and should not be allowed to set longer than forty eight hours before skimming. After it is skimmed, the cream is kept from the cold in order to have it sour, though care should be taken that it does not set too warm. After it is soured sufficiently, it must be churned vigorously until the butter appears, which will require from fifteen to thirty minutes, if the cream is at the proper temperature.—No warm water must be applied. The application of hot water to the cream, while churning, is the main cause of white butter in winter. I have followed the above plan for some years, and seldom fail to make as nice, yellow butter in winter as in summer.

PRESENT VALUE OF HORSES.—We are indebted to a correspondent for the result of the great Sale of Horses, &c. which took place in Galt, on the 17th inst. The stock belonged to J. Carter, Esq., Contractor, and who having finished his present contract, disposed of it by auction. A grey horse, 6 years old, was sold to Thomas Roland, Esq., for $185, and a mare about the same age, was purchased by Mr. Todd, Fairchilds Creek for $180; four other teams were bought in, after $400 per team had been offered for them. We will be able to estimate the value of horses shortly.—*Spectator*, Hamilton.

BREWING WITHOUT MALT.—The *Bury Post* says that in consequence of the high price of malt many families have dispensed with it altogether, and adopted the following economical system of brewing, from which very good and wholesome beer can be obtained at between fourpence and sixpence per gallon. Take half a pound of hops and boil them well in fourteen gallons of water for about an hour and a half, to which add 7lbs. of sugar, previously boiled, or simmered in a pint of water, over a slow fire for twenty minutes, when it will become a thin fluid, care and copper room being allowed, as it will readily boil over; then mix it with the boiling hop liquor, and boil it for twenty minutes longer; then strain it off, and when sufficiently cool, set it to work with yeast in the same way as you do beer from malt. Any quantity or quality may be brewed by the above method, at half a pound or more of sugar per gallon of water. This beer, at two or three months old, is excellent, and at six or eight months becomes very strong, and assimilates to that of malt liquor both in taste and colour.

GUANO DISCOVERIES.—A Washington correspondent of the *New York Daily Times* says—"News has reached here from Mr. J. Vallamil, of immense deposits of guano on the Gallipagos Island, off the coast of Ecuador, situated half way between San Francisco and Cape Horn."

THE SUPPLY OF PERUVIAN GUANO.—Rear-Admiral Moresby, the commander-in-chief of the squadron on the Pacific station, has forwarded to the admiralty despatches containing an estimate made by Mr. M'Intosh, naval instructor on board Her Majesty's ship Portland, of the quantity of guano now remaining on the Chincha islands. The following is Mr. M'Intosh's estimate:—"Quantity remaining on northern island, 5,500,000 tons; ditto on centre island, 1,500,000 tons; ditto on southern island, 1,600,000 tons; total, 8,600,000 tons." Rear-Admiral Morseby expresses his confidence in Mr. M'Intosh's estimate, and observes—"From the plans and elevations of Mr. M'Intosh's from my personal examination and information, gathered from those on the islands conversant with the working, I am of opinion that, at the present average rate of exportation, the islands would be exhausted of the guano that would pay freight, or be saleable in the English market, in eight or nine years."

On the General Management of a Farm in Lower Canada;

Showing how an exhausted soil may be rendered perfectly fertile without the aid of capital. By a Farmer in the District of Montreal.

The *habitants* of Lower Canada are in general thrifty and industrious: their farms lay well, although they are, for the most part, worn out. All that they want is a *good system*, and such a system, to be available, ought to possess the following qualities, viz:—

1st. It ought to be economical, and not require more capital than the actual system, or rather than the present absence of system, requires. It is undoubtedly of great advantage to apply capital to the land, but this advantage is in general beyond the reach of our farmers, as their means are not sufficient.

2d. It ought to restore fertility to the soil, and maintain it by the products of the land itself. Manures got from other quarters than the farm itself are always expensive, and, at a distance from town, are often not to be had at all.

3rd. It ought to be simple and of easy application.

4th. Finally, it ought to have experience clearly in its favor.

The author of this Essay, having for a long time made the practical application of a system which unites all these advantages in a high degree, believes that it is his duty and privilege to submit it to his fellow Colonists, and he feels certain, that if this plan is adopted, it will render the country more productive, and consequently more prosperous; it will in the space of six years, convert worn out, worthless, weedy land into smiling, rich and fertile farms, and the small miserable animals of Lower Canada into valuable stock, and all that without a greater expenditure of labor and money than is incurred by the system actually in use.

Before explaining his system, however, the author will take the liberty of relating his own experience, and for greater clearness, he will speak in the first person.

I came to the country thirty years ago, and burdened with a debt of £40; I leased a worn-out farm in Lower Canada of eighty-four acres, in the midst of a French population, and at an annual rent of £45. Well, in the space of twenty-one years, I have paid my original debt, and saved enough to enable me to purchase in the same neighborhood a much better farm than the one I rented. The owner of the farm which I bought, was going on every year from bad to worse, until he was forced to sell it, whilst I, the tenant of a less productive farm, and paying rent all the while, was enabled to buy him out, as just said. What was the reason of this anomaly? The Canadian was stronger than me, had equally good health, and had no rent to pay. The reason was, that he had no system; he let his land become exhausted, and full of weeds; he let his stock starve; he wasted his manure, the gold of the farmer, and let every thing go to ruin for want of method; but when I had got hold of this same farm, and had applied the system which I am about to describe, the whole was brought gradually, field by field, into good condition by the end of six years; since then, the condition of the land has steadily improved, and that by resources drawn wholly from within itself.

The system to which I allude, is known to all good farmers everywhere as the basis of all improvement, I mean that of

A Rotation of Crops.

There are two sorts of reasons in favor of this plan of rotation of crops.

1st. Because different plants draw from the soil different sorts of food, so that one plant will grow freely in a soil which is worn out as regards another.

2d. Because the crops being various, the occasional failure of one is not so much felt, seeing that the others furnish subsistence sufficiently without it.

The cultivation of a fair proportion of all the varieties of crops which Providence permits to grow readily, ought therefore to be considered as the best means of averting a famine, and what intelligent farmer, with the case of Canada and Ireland before him, would wish to be limited to the culture of wheat and potatoes only.

I shall now explain the system of rotation, which, during thirty years experience, I have found best suited to the climate, the soil and the actual condition of Lower Canada, and which I believe to be generally applicable to the lands held by the French Canadians, and herein I shall speak of nothing that I have not done myself and practised with success.

Plan of the Rotation.

Divide the arable portion of the farm, whatever may be its size, into six parts, as equal as possible, with a direct communication from the barn yard to each field, and from one field to the other, so that the cattle may pass from one to the other when required. This division into six fields, may require on most farms new fencing, and it will be proper, beforehand, to see how this can be done with the least possible expence. I shall now suppose the farm prepared to receive the application of this system, and that is the one which I have found the best for even the poorest settler.

1st. Root crop, such as potatoes, carrots, beets, parsnips, &c., [turnips and also flax,] and in cases where the land is not sufficiently open for a crop of this kind, the field must be left in fallow.

2d. Crop of Wheat or Barley.

3d. Crop of Hay.

4th. Pasture.

5th. Pasture.

6th. Crop of Oats or Peas.

In beginning the application of this system, that field of the series which is in best condition for a Root crop, should be called Field - - - A

The best for Wheat or Barley - B

That which is actually in Hay - C

The Pasture fields - - D & E

That which is best for Oats or Peas F

Each field for the first year ought to be appropriated to the crops above mentioned, and after the fashion now in use among the farmers of Lower Canada, except in the case of field A. By this plan they will at all events still get as much from their five fields as they get at present.

The culture of field A and of crop No. 1 come up together for the first year, and ought to be the object of special attention, as this is, in fact, the key to the whole system; for the good culture of this field has for object, and ought to have for its effect, not only a good crop the first year, but also to improve the land for the five other years of this Rotation of Crops.

In the following year the cultivation of the different crops will be according to the following order:

Crop No.	2	in the field	A
Do.	"	3	"	B
Do.	"	4	"	C
Do.	"	5	"	D
Do.	"	6	"	E
Do.	"	1	"	F

and so on, changing each year until the seventh, when crop No. 1 comes back to field A, and the whole will then be in a good state of fertility, and free from weeds. The above system has been proved to be capable of restoring old land, and extirpating all weeds.

In order to render the thing more simple and easy of comprehension, I shall suppose myself to be again obliged to take a worn-out farm in the autumn of 1849. The first thing that I should do would be to divide the land into six fields, by proper fences, to prevent the cattle going from one field to the other; and I would then take for field A, that which appeared best for green crops or root crops; I would collect all the manure which I could find in or out of the barns. I would take up the flooring of the cow-house, stable and piggery, and I would take out as much of the soil underneath as I could get, for this soil is the essence of manure, one load of it being as good as four or five loads of common dung. The portion thus removed ought to be replaced by an equal quantity of ordinary soil, or, if it be possible, of bog earth, which might be removed when necessary afterwards.

The dung and other manure thus collected should be placed on the field A in September, or the beginning of October, spread with care [as far as it will go], and covered up in a shallow furrow. Manure aids the decomposition of straw and the weeds of the soil, and frees it from these plants, which thus help to keep the soluble portion of the

manure until its juices become necessary for the crops of the succeeding years. The greater variety there is in the crops of this field, the better it will be, provided the soil is suitable for them. Thus, this field ought, as nearly as possible, to look like a kitchen garden.

Under the actual circumstances of the country, I would particularly call the attention of farmers to the cultivation of the Carrot as being one well adapted to our soil and climate. The Carrot has fewer enemies than any other plant that I know: the best sorts for field culture are the Red Altringham and Large White Belgian. The latter kind has been introduced into the District of Montreal since the first edition of this pamphlet was written. As food for cattle it may prove better than the Altringham—the seed germinates quicker, grows faster, and produces a heavier crop. It will do better on a thin soil, as the root rises considerably above the ground. I have raised a heavy crop of them on wet mossy soil, many of the roots rising ten or twelve inches above the surface. They also keep better during the winter. The method of cultivating the carrot is as follows:—

Culture of the Carrot.

The land which has been manured in the fall, as above described, ought to be ploughed at least twice in the spring, the one furrow across the other, and both as deep as possible. It is then to be harrowed until it is properly mellow. You then make with the plough two furrows, distant two feet, or two feet three inches from each other, taking care to raise the soil as much as possible between each. You pass the roller over this ploughed portion, and then with the corner of a hoe, make a small furrow or drill along the top of the rows: drop the seed into this furrow, and pass the roller over it again: this last operation will cover the seed sufficiently.

If you can get a seed-sower, that will simplify matters considerably. A roller is essential in the culture of root crops which spring from small seeds, but it can be readily got by all farmers. A log of twenty inches diameter, and five feet long, with a pole fixed at each end, will do the business admirably.

Carrot seeds (and you may say the same of other seeds) ought to be soaked in rain, or soft water, until they are about to sprout, and then rolled in quick lime until the grains are dry enough not to stick to each other. When there is no lime wood ashes will do as well. A pound of seed, if it be good (and you ought always to try it before sowing), will be sufficient for one acre of land. By the above plan, the young plant will come up before the weeds, so that it will be easy to distinguish the rows of carrots before the weeds appear: this renders the cleaning comparatively easy, since it may be done (except the thinning) by means of a cultivator. This cultivator is an instrument which every settler ought to have, and which, like those already mentioned, is extremely simple in its construction. It is made of three bars of wood joined in front and separated behind according to the width of the furrows which you wish to clean. The instrument, called the Horse-hoe, or Drill harrow, or Cultivator, is drawn by one horse and has handles to it like a plough, only lighter. A man or a boy may guide it so as not to touch the rows of Carrots or other crops, but only to raise the soil to a greater or less depth, at pleasure. As soon as the weeds appear, you draw this harrow between the rows, so as to stir the soil as close as possible to the young carrots, but without touching or covering them. This process will keep the plants sufficiently clean until the time for thinning them and leaving them four or five inches apart from one another; soon afterwards you may plough between the rows thus harrowed and raised. These operations do good to the plant by permitting air and moisture to have access, and by facilitating evaporation. My plan for gathering the carrots in autumn is to pass the plough along the right side of the plants as close as possible, without injuring them: this frees them on one side, and the stem is strong enough to allow us to haul up the roots by it afterwards.

This method of culture requires a good deal of labour, but the return is more than enough to recompense the farmer.

When we consider the large amount of nutritive matter contained in this root, and its general application to all the living things on a farm, its culture cannot be too strongly recommended, besides it is relished by all animals, especially by working horses, to whom it may be given instead of Oats.

I have dwelt particularly upon the culture of the Carrot, because the same method applies to the culture of all the root crops which can be advantageously grown in this climate, such as Parsnips, Beets, Mangolds and Turnips.

Parsnips will grow in a close soil, almost in clay, and do not require cellars since they will remain uninjured all winter in the ground. In this case, you will have them in the spring affording a new and succulent food, at a time when it is most necessary. Every animal will eat parsnips with relish, and cows fed upon them yield a very rich milk.

Beets and Mangolds have the same value as a crop, and as food for milk cattle; but I do not consider them to be so good for fattening cattle.

[In spring, all the manure made during the past winter should be carted to the field, placed in a heap, and twice turned. All bones should be gathered and broken up with a hammer, all coal and wood ashes, scrapings of sewers, the dung of the fowl-house, and the contents of the privy, should be collected and made into a compost, with dry loam or bog earth.

The above manure may be used for that portion of the field devoted to cabbages, potatoes, and turnips. It should be put in the bottom of the drill on which the above are to be planted or sown.

When the ground is properly ploughed and harrowed, and a sufficient quantity of sound seed sown, say at least four pounds to the acre, the Turnip crop is as certain as any other.*

The sowing of Turnip seed should be commenced early in June, and may be continued up to 20th July. If the fly takes the first sowing, a second will be likely to succeed.

The Turnips, when well up, and getting strong, should be thinned out to a foot apart, and the hoe and cultivator passed through them, at least twice before they meet in the drills.]

Horse-Beans and Peas.

If the land is too heavy for root crops, horse-beans or peas will suit for No. 1, taking care to sow them in drills, and to prepare the land as above described for root crops.

Ploughing.

If it be thought absolutely necessary to summer-fallow, that is to plough without sowing, which only happens when the soil is so hard and heavy that it cannot be pulverized in any other way, you ought not to spread the manure on the land in the preceding fall, but plough the land and ridge and furrow it with as much care as for a crop. You need not touch it again before the month of June, when you must plough it again and harrow it so as to render it even, and destroy the roots of the weeds. You may then draw the furrows in a straight line, giving them a uniform breadth, and so as to facilitate drainage. About the middle of July you must plough it again, and sow it with plenty buckwheat. At the end of September, plough it again, having previously spread it with dung. In this case the buckwheat is ploughed under with the manure, and serves greatly to increase the latter. The land thus prepared ought to be sown with wheat in the ensuing spring, and you may add a little timothy and clover. A bushel of timothy will suffice for four or five acres, and three or four pounds of clover to each acre.

By following the method above described, you will have, in the year 1851, quadrupled, or more than quadrupled the fertility of the soil.

I have now done all that I can for field A. I have weeded and manured it as well as I can; and after having taken the crop of

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* That four pounds of sound seed to the acre on ground properly prepared will render the Turnip crop as certain as any other, is not in the original, but has been inserted by the Publishers of the New Brunswick Edition of this Pamphlet, and for which the Author is not responsible. It may be the case in the Sister Province, but it is not so with us here, in the District of Montreal. No amount of seed or preparation of the ground has made the turnip a certain crop. These may be helps, but that is all.

roots and the crop of wheat or barley next year, I leave this field to rest until the other fields have been improved in the same way, and according to the method above described. When this shall have been effected, that is to say in the space of six years, or in the year 1856, the worst will be over, and the battle may be considered as gained. The fields will then be in a clean and fertile condition, and their value will consequently be greatly increased. The Farm of 70 or 80 acres, which in 1849 only sustained three or four miserable cows, and perhaps no more than an equal number of sickly sheep, will be capable in less than ten years of furnishing an abundant subsistence for ten or twelve cattle and other stock in the same proportion.

One of the great avantages of this system of rotation of crops is, that the pastures, which in summer furnish summer-feed for the stock, are in due proportion to the quantity of roots and hay destined to winter-feed them, and in due proportion to the straw which the grain-crops yield for their bedding. I will observe here that farmers—except those who live near towns, where they can easily procure manures—ought never to sell a single load of their hay, straw, or roots, since the whole ought to be consumed on the farm, with the view of procuring a sufficiency of manure therefrom, whereby the fertility of the soil is to be sustained. But if the farmer is not to sell hay, or straw, or roots, what is he to sell? I answer, the third of the land being under this system appropriated to grain crops, he will always be able to sell a large part of them. The half of the farm being in hay and pasture, will allow it to produce a large quantity of butter, cheese, butchers' meat and wool, and to sell a considerable part of these after having supplied the wants of the family. It may be said, that six years is a long time to wait for the renovation of the whole farm; but I will reply, that I know no other means by which it may be done in less time, from its own ressources; and it is worthy of observation that the land is improving every year. The produce is larger, even for the first year, under this system than it is under the present method of culture, and from year to year, the land is improving, field by field, and is producing more and more, so as to pay the farmer better than it does at present, and to recompense him doubly afterwards when the whole shall have been improved under a system of rotation.

Another advantage of this system is, that it enables the farmer to give his cattle a succession of changes of pasture from May to December. There being always two fields devoted to pasture, one old, and the other new, the old pasture will supply the earliest grass, the heavy cattle should be turned into this field first, the land being firmer from the former years pasturage, and the sward closer, it will receive less injury from the feet of the cattle, while the land is soft. Ewes and lambs may be put on the new pasture and should remain there all summer. Where a dairy is attended to on a small arable farm the number of sheep should not exceed that of the cows. The sheep will consume only a small part of the grass on their pasture, and when too rank the cows should be turned in with them. By the time they have eaten the excess of grass on this field, the old pasture will have grown enough to supply a sufficiency, until the after grass on the hay-field is ready for them Then follows the oat and pea stubbles, the new sowed down grass field may also be pastured when the land is dry, and when all grass fails the tops of a few acres of carrots, mangols or turnips will prove an excellent substitute for grass, until the hard winter sets in. The roots must be protected from the frost, and served out to the cattle during winter and early spring.

It may be objected that two years of pasture is a long time of rest for the land; but you will observe that the land does not remain unproductive during this period of repose. This plan not only contributes to re-establish the almost exhausted fertility of the soil (and it will be admitted, that this is the only one now practised by the Canadian *habitans)*, but it is also the best means of furnishing the farmer with the first necessaries of life, and the articles which, so to speak, will most readily find an outlet in our markets, such as beef, lard, mutton, butter, cheese, wool, and other products already named.

Manures.

Manures are of the first importance to the farmer, and he must do everything in his power to increase their amount. The system here proposed is calculated so as to increase the quantity of manure in proportion as the soil becomes improved. As already said, the farmer ought not to sell a particle of his hay, or straw, because these are the principal materials for the manure, and consequently it is infinitely worse to sell the manure itself. The manure thus economized will suffice each year for the field which is to receive the root crop (No. 1).

After the crop of Oats (No. 6), the land is not yet exhausted, and might even yield another grain crop. It is better, however, to preserve this fertility then to be obliged to bring it back continually.

In this short treatise, it is impossible for me to mention one hundredth part of the means which we have of increasing our stock of manure. I shall content myself with alluding to the rich deposits of bog-mould which we possess, and the lime-stone which can be had every where. The very weeds even, which are the curse of our fields, may be converted into good manure.

Draining.

Although Drainage is a profitable improvement of the land, it is so expensive that I will say nothing more about it than what the Canadian farmers know already, that is, that the land ought to be so ditched that water cannot lodge and render the soil unproductive.

[There are always spare days, however, such as a damp day in harvest, or when the frost stops the ploughing in the fall, when under-draining might be done to a considerable extent. All drains in this climate should be at least 3½ feet deep, cut as narrow as possible, and filled with eighteen inches of broken stones, or laid with draining tiles. Whenever the land is springy, or the subsoil heavy and retentive, draining will do good. The drains should be cut parallel, from 20 to 30 feet apart, and should run in the direction of the lowest level.]

Stock.

As for the sort of Stock which ought to be kept, I would advice a regular proportion of all the animals which prosper with us, because one sort may be fed on the food which another will not touch. For instance, Sheep eat greedily and get fat upon French beans, which no other creature but man can use.

Horses.

The Canadian Horses are, everything considered, the best breed for the country, but we ought to take care to raise only the best sorts: the system of leaving entire all the small miserable stallions, is sure to deteriorate the breed: Colts ought to be fed abundantly, particularly during the first winter after weaning. Nothing can be more absurd than the idea of starving a young Colt, for the purpose of making it hardy: still the idea is rather commonly entertained. Colts, like children, require ample liberty and ample nourishment.

Cattle.

The Canadian breed is perhaps the best for the country, and the best to yield milk, butter, &c., provided care be taken to select the best bulls and cows to breed from. Too much care cannot be given to this point, and the calves must be supplied with good and abundant food. If it be desirable to cross the breed, so as to increase the quantity and quality of the milk, this can only be done with the Ayrshre breed, seeing that the larger breeds doinot do so well for the country, at least in the present condition of its pastures.

[By keeping a thorough-bred Bull, and changing every three or four years, and rearing only the best heifers, the stock would gradually be brought up nearly approaching to the breed of the sire.]

A good Canadian Cow will, in my opinion, give more milk for the same allowance of food, than any other breed which I know.

[The profits of the dairy depend almost entirely on the care taken of the cattle during winter. Cows, warmly housed and well fed through the winter, and put on good pasture in summer, will yield much more than sufficient to pay for the difference of keep. In the Province of New-Brunswick, cows are generally fed on dry hay in winter, kept in cold stables, and are pastured in the woods, or on fields which have been impo-

verished by excessive cropping. The consequence is, that, as reported by the Farmers themselves to Professor Johnson, the average yield, per cow, for the season, is only 89 lbs. Butter, or 140 lbs. Cheese. In Ayrshire, as reported by Mr. Colman, Commissioner from the United States, the yield is, per cow, 300 lbs. Butter, or 500 Cheese. To ensure a similar yield, the following treatment is requisite :

Select good, well shaped, healthy cows. In winter, provide for them a warm stable on the south side of the barn. Water them in their stalls. Boil regularly for them a mixture composed of turnips, mangolds, or carrots, with chaff or cut hay, and a small allowance of barley, oats, or linseed : of this let them have two pailsful each, daily—and as much oat-straw or hay as they require. In summer, turn them into fields where they can have as much grass as they can consume. The cows should calve in April; the calves to get the milk for a month, and afterwards to be weaned off with skimmed milk and boiled linseed.

Sheep.

The Liecester breed is the best to give large and fat sheep, but it is not so advantageous as regards wool, which is perhaps the principal object for which sheep are kept. That breed which would possess a combination of the two qualities of fat meat and fine wool, and a vigorous constitution withal, would be the best for Lower Canada. To attain this object, you might cross the common sheep of the country, first with a Liecester Ram, so as to get a large breed. and then mix the product of the first cross with a Cheviot Ram, so as to get a finer wool, or first with a Cheviot and then with a Liecester Ram. In this way I have procured hardy sheep, any one of which will yield six or eight pounds of fine wool, and from twenty-two to twenty-five lbs of mutton per quarter. In breeding, the greatest care must be taken always to choose the finest Rams, and to preserve the finest lambs; and on no pretext ought the finer individuals to be disposed of.

On Keeping Sheep.

As this is of the greatest importance, and but little known, I will add a few remarks, which will be excused, since this has been the business of almost my whole life.

Sheep ought not to be allowed to run from field to field, as this gives them wandering habits, which injures them the whole summer through. When sheep are well fed and well treated, they will follow the person who has charge of them wherever he pleases: and if they are taken and enclosed in good pasture, they will give less trouble in looking after them than any other sort of stock. It is also of the greatest importance to smear sheep about the middle of November: for which purpose I have made use of the following mixture, which succeeded wonderfully well. The quantities here indicated will suffice for twenty sheep.

Rosin, - - -	4 lbs.
Common Oil, - -	3 pints.
Butter, - - -	8 lbs.

The oil ought to be heated to the melting point of the rosin, and the butter then added after the oil has ceased to boil, which is a point requiring attention. The whole ought to be stirred until they become thoroughly mixed; and should the composition prove to be too thick to be used, buttermilk or cream may be added, taking care to mix well. This ointment is to be smeared on the skin of the sheep in parallel lines, distant one inch from each other, and for the whole length of the creature. This application destroys vermin, invigorates the growth of the wool, and protects the animal against cold. This precaution is absolutely necessary if we wish to secure a good flock of sheep.

Another thing of great importance is, never to shut up sheep in a close ill ventilated place. It would be better to pen them up in some corner of the barn rather than to treat them so. The sheep can naturally endure a considerable degree of cold, but it cannot do without fresh air; consequently the fold ought always to be well ventilated.

It is a very bad practice to let the rams walk with the sheep in autumn, because that is the reason why the ewes drop their lambs too early in the spring. The ram (and a single one will be enough for five farmers,) ought to be kept apart from the 15th of September till the 22d of November, and if, at this latter period, he be allowed to go to the sheep, the lambs will appear about the 17th of April, and the ewes will not have had time to get worn out with suckling before going out again to the pasture.

Pigs.

The best breed for the country is that called the Berkshire, or Chinese, and as many as possible ought to be kept upon every farm, (that is as many as will consume all the milk and other remains of the dairy,) and which may be fattened in the fall. That lean, hungry, long-legged, long-nosed animal, styled the Canadian Pig, ought to be for ever banished. A good breed will produce double the lard with half of the food. The Chinese or Berkshire Boar, crossed with the breed of the country, for three or four years, will effect the necessary change.

Agricultural Implements.

Those which are generally made use of, with the addition of the two mentioned above, viz., the Roller and Cultivator, may suffice until new improvements require the use of new implements.

Dairy.

The Canadian women are industrious and cleanly, consequently they are well fitted to make good butter and cheese, as soon as they know how, but this does not come within the limits of the present little treatise; besides the cattle ought to be well fed before we can hope to get milk sufficiently rich for the purposes of the dairy. I limit myself, therefore, to indicating these preliminaries.

Conclusion.

It may be said, that the Agricultural Societies are intended to bring about the improvements required by the country; but if these societies content themselves with offering prizes for the finest animals and the heaviest crops, without teaching the way to produce fine animals and fine crops, they will be acting like a person who shows another a fine bunch of fruit on the top of a wall, without offering him a ladder whereby he might reach it. He would be reduced to the necessity of looking at it, and wishing for it, without the hope of reaching it. The publication and circulation of practical advice like the foregoing, is that which would become to this individual the ladder of which he is in want.

THE GROWTH AND PREPARATION OF FLAX IN YORKSHIRE.--A meeting of parties interested in the growth and preparation of flax, was held at the Leeds Court House, on Thursday afternoon, for the purpose of considering the best mode of promoting the culture of this article of great importance to the trade of Leeds. Some influential parties in Leeds having determined to raise and appropriate the annual sum of £100 and upwards to promoting the object in view, the meeting was held to determine upon the mode in which the money could be best applied. It was determined that three prizes should be offered for exhibitions at the next annual show of the Yorkshire Agricultural Society, which will be held at Ripon in August, 1854, first for the best specimens of flax grown within ten miles of Leeds; secondly, for the best specimen of flax straw grown in Yorkshire; and thirdly, for the best specimen of scutched flax produced in Yorkshire. It is probable that the money for the prizes will be forthcoming for a number of years. We understand that a similar project is on foot as regards the growth of wool.—*Leeds Mercury.*

LIQUID MANURE FARMS.—Mr. Littledale, of Liverpool, some time since introduced irrigation by liquid manure hose and steam-forcing pump, at his well-known dairy farm at Seacombe, from plans devised by Mr, Torr, of Lincolnshire. The arrangements are much better then those at Tiptree; but if they had to be done over again we have heard that a pump, on the plan of Mr. Appold's, as shown at the Great Exhibition in Hyde-park, would be used. At Mr. Smith's farm of Emmett's Grange, on Exmoor, liquid manure is conveyed without pumps or hose down the sides of a slope by the open watercourses of waste meadows, and by this means more than 100 acres of land, not worth £2, has been made worth a rent of £4 an acre. The last system has been described in the transactions of the Royal Agricultural Society.—*The Field.*

THE SEED BUSINESS IN PHILADELPHIA.

By J. J. S., Philadelphia, Pa.

This good old city of horticultural renown has long been the seat of a thriving and lucrative business in seeds. The venerable and excellent Bartram, and his neighbour, Marshall, in the infancy of our colonies supplied Europe with our native seeds, trees, and flowers. They dabbled, too, as their pleasant correspondence shows, a little in toirtoises and snakes! The letters to their English friends and employers, as collected by Darlington, forms one of the very pleasantest books of this or any age, especially to those interested in botanical subjects. I can not but wish the work accessible to every gardener, for whom Bartram was a model of industry, perseverance, and success. His beautiful old garden has fallen into the hands of Colonel Eastwick, long in the employment of the Emperor of Russia in the locomotive and railroad business, and he has carefully preserved the specimens of rare trees collected by Bartram, taken care of the old mansion built by Bartram's own hands, and now a picturesque object overrun with ivy coeval with the botanist himself. No stranger who travels to our borders should omit to visit these now superb grounds, where he will find the finest specimen trees and shrubs in America. The garden, by the liberality of Colonel Eastwick, still supplies seeds from the trees of Bartram's collecting from Canada to Florida. Meehan & Saunders, of Germantown, who advertise in the June number of the *Horticulturist*, are liberally permitted to collect from this garden whatever will be valuable to horticulturists. It is something to have one's seeds from "Bartram's garden."

Succeeding Bartram and Marshall, our neighborhood was fortunate in possessing two intelligent and most worthy gardeners from England. David Landreth, who had been educated as nurseryman, settled at Philadelphia in 1784; he was shortly joined by his brother Cuthbert. The two, with such slender means as they could command, ultimately established themselves in business, uniting for a time to their own fond pursuit (as a resource to meet present wants) the culture of rare culinary vegetables; and to their early efforts in that way may be traced the reputation which the Philadelphia market now sustains—unrivalled by any city in the Union. Gradually following the bent of their excellent taste and cultivated minds, they added commercial green-houses, which were the delight of the writer's youthful days. Rare plants—then how rare!—found their way, by their enterprise, to our borders, and a business in these articles was commenced which has grown to be one of national importance, and is so especially here. I allude to the commerce in Camellias, Roses, rarer flowering plants, no less than trees. The Landreth Nurseries have had an enviable celebrity, of which the descendants of these honorable dealers may well be proud. I can recollect when all the intelligence of Philadelphia resorted there to improve their taste and increase their collections. The whole town went out for many seasons to see the blooming of the first Multiflora Rose, the collection of Azeleas, and other valued novelties. The Maclura for a hedge plant was first introduced here, from seed brought by Lewis and Clark. The original fruit-bearing tree was till lately a source of millions of seeds; but, having attained the size of a large Apple tree, it is now bowed down by many a blast, but in green old age. Ornamental Magnolias, especially the *conspicua* grafted on the *acuminata*, emanated extensively from this garden, to which the most beautiful specimens of many other species of trees and shrubs may be traced. Calm and industrious and truly honest in the pursuit of their interesting business, these gentlemen lived long in the enjoyment of their just reward, and the writer is mistaken in their characters, if their career and intelligence was in the least inferior in importance to that of Bartram. In a rather different line, and with a better home market, they took up the ball were Bartram dropped it, kept it in motion, and popularized the pursuit, reaping a just recompense.

More fortunate than Bartram, a descendant, the son of David, carried on their ever-increasing business, till-competition in green-house and tree culture had so reduced the profits as to give less return than formerly. The old gentleman had, however, not neglected to supply a growing demand for vegetable seeds, to the cultivation of which they appropriated some ten, and then twenty, and afterwards the enormous amount of thirty-five acres! "Landreth's seeds" acquired a great and growing reputation; the demand soon exceeded the supply, and gradually the tree and the green-house establishment had to give place at the approach of the city. The mansion house has been converted to the uses of a public school, called after the owners. The great stock of ornamental trees and shrubbery was dispersed by auction, giving a supply eagerly embraced by purchasers, which has done much to embellish our neighbourhood. Laurel Hill Cemetery, now quite an arboricultural wonder for its variety and beauty of planting, as well as hundreds of other beautiful places, owes much of its ornamentation to this source. We must not omit the origin, at these great nurseries, of the Camellia *Landrethii*, an exceedingly valuable variety, which is destined to carry down to posterity the name so much respected among us. The nursery and garden grounds soon grew too small for the ever-increasing seed business; other land was procured in the neighborhood, till the vexation and difficulty became too great of collecting from distant fields the products in such demand from home and abroad, and Mr. David Landreth, the younger, who now became the sole proprietor of the business, determined to concentrate the whole of the process in one shot. A most fortunate location in every respect presented, and Bloomsdale, a magnificent farm of about 250 acres, was purchased, twenty miles above Philadelphia, and near the town of Bristol, having now a front on the Delaware river of more than a mile. The ground was every way adapted to the object in view, Of suitable soil, level, and in a high state of cultivation, it was immediately turned to successful account. The fences were removed, the fine old family mansion greatly enlarged and made everything that a country gentleman could desire, with a lawn planted with all the new and old valuable trees in vogue, each with space sufficient to develop its beauties, and the seed business in America took at once a position commensurate with its value and importance. Orders from the most interior parts of India where the Englishman penetrates,* from South America, from the West Indies and our own possessions on the shores of the Pacific, poured in with a celerity which gave no cause for regret at the costly step taken. The huge barns and granaries were soon filled and emptied; the iron warehouse at Philadelphia, with its nine floors stored with this novel merchandise, more valuable to our growing country than all the silks and haberdashery imported at the cost of millions of dollars for the adornment of our extravagant belles, groaned with the products of the farm, and with agricultural implements made under Mr. L's. own supervision, to suit all climates, all fancies, and all pockets. Agents multiplied everywhere, till no town in America but was able to procure in its own borders the invaluable blessings of seeds true to name, and warranted sound. The little beginning with ten acres was crowned with success; the produce of two hundred and fifty acres met a welcome and healthy demand: but this too has become insufficient, and one hundred and twenty-five more adjoining acres have been added this season; and these are at once to be converted to a similar purpose. The little seed has grown to three hundred and seventy-five acres—the acorn has produced a great oak, overshadowing the country, beneath whose boughs thousands find shelter, health, and nutriment. You may now order this most important portion of your farm and garden supplies with a certainty of obtaining what you desire. You, Mr. Editor, must take the train from New York very soon which passes through Trenton, and you may ride on the rail through this paradise for more than a mile, and see nothing—not a fence—but vegetation going profitably to seed. No thistles are gathered on this princely domain. We would rather be the useful proprietor of it, than of any "gable-ended" country villa

* The seeds ripened in our climate are greatly preferred in these countries to any produced in England.

in the land, however backed with railroad or bank stock. The noble Delaware spreads its broad waters in front; the canal to the coal regions skirts it on the rear, affording access for the manure from the city, of which thousands of cart-loads are distributed on the land annually. An hundred men, boys, and girls, are employed on the premises and in the city warehouse; some actively engaged in plowing, and cultivating, and threshing, and preparing the various products; and others engaged in the constant occupation of filling little and big paper bags with the invaluable products. The very making of these paper envelopes is a large and separate business, employing many hands. Mr. Landreth and his agents supply gratuitously to their customers, an almanac, with a description of the mode of cultivating each seed, and a calendar of operations for the garden and greenhouse, which no young gardener or inexperieced amateur should be without.

I have said enough to indicate the importance and value of this appearently simple business; it is one, however, requiring the greatest intelligence, and largest commercial experience, united with the strictest integrity. It has fallen into good hands—no better, we venture to say, will ever wield an engine so fraught with good to the human species; integrity indeed must be the first element of success in such a commerce. America is full of elements of similar success; for it is evident that in so large, so intelligent, and such an increasing population, whoever chooses, by industry, integrity, and the application of the highest intelligence, to interest a liberal public in his particular line of business, if he carry it on with the same untiring diligence as Mr. Landreth has done, will insure the same result. We will not stop to discriminate between the usefulness, the *nobility*, of such a pursuit as we have been endeavoring to describe, and that of the vender of *quackery*, under whatever guise. Other gentlemen have also an enviable reputation in the same line of business, but we must be allowed to state that none other has laid the foundation for success so broad and deep.

The writer is indebted for these reminiscences to his own recollections and observations. He was one of a fortunate few who lately had the pleasure to pass a day on the Landreth domain in company with the "Agricultural Club," an association of twelve gentlemen who meet at each other's farms alternately, to see improvements and converse on subjects connected with husbandry,—a plan highly useful, and to be commended for imitation in every neighborhood for its manifest advantages. The day was one of the most genial and agreeable the season, and of unmingled enjoyment; of of enjoyment, too, to the host, far surpassing any which the most successful conqueror can boast, who turns the land into fields of blood instead of fields of plenty.

The first fruits of the Japan Expedition have lately been received by Mr. Landreth, consisting of a box of seeds sent him by Commodore Perry in return for a similar present forwarded by Mr. L. to the Japanese. From this box what "value received" may we not hope for?

Mr. L. is surrounded by a most amiable family; and it is not beyond the sphere of this brief chronicle to congratulate the public that worthy successors to his business are provided for the future.

Bloomdale offers a feature of great interest to the lover of his own species. The farm hands are accommodated with pleasant cottages on the premises, and form among themselves a social circle for improvement in reading and for proper amusement. The proprietor uses every means in his power to promote their welfare, and the little community, bound together by the ties of mutual interest, may challenge competition with any "model" attempted by so-called "reformers." Duties cheerfully performed, make happy faces; and we were quite disposed to designate Bloomdale as the "happy valley."—*Horticulturist.*

TIPTREE FARM.

Mr. Mechi's annual gathering at Tiptree is certainly one of the most agreeable events of the agricultural year. Though the circumstances which first gave a special interest to these meetings have happily passed away, they still continue highly attractive. In endeavouring to stimulate improvements in husbandry the enterprising tradesman of Leadenhall-street has created an occasion which every one who partakes of it enjoys. To his visitors from town a reasonable excuse for escaping out of London during the dog-day heats is of course exceedingly welcome. To those engaged in country pursuits there is the feeling of curiosity to gratify as to a system of farm management much talked about, and departing in many respects from the routine of agricultural practice. To all there is the pleasure of inspecting excellent crops, and observing how the oldest and most delightful of human occupations is progressing. Man, however much he may be modified by circumstances, never loses entirely his natural tastes with reference to the cultivation of the soil. He may know nothing or next to nothing about it, but the treatment of mother earth, so that in due season she may yield her increase, always retains some interest for him. It is therefore little short of the supply of a public want at which Mr. Mechi now aims in his annual gathering. He began by inviting inspection in order by the force of example to give an impulse to improved cultivation. He still perseveres, and not without effect, in the same direction; but these meetings have acquired gradually an established character, looked forward to by numbers of people belonging to different spheres of life, coming from remote parts of the country, and attracted even from abroad. Yesterday the 300 or 350 guests who visited Tiptree included peers and members of the House of Commons, civic dignitaires, men of science, heads of Government departments, engineers, writers on the science and practice of agriculture, a sprinkling of the clergy, implement-makers, commissionners from foreign States, and a large number of farmers. The Earl of Waldegrave, Lord Rawleigh, Mr. Monckton Milnes, Sir James Duke, Mr. Waddington, Mr. Fitzstephen French, and others, represented the Legislature on the occasion. The Lord Mayor of London, the Mayors of Lincoln and Oxford, Alderman Copeland, Finnis, and Wire manifested by their presence the interest with which the cause of agricultural progress must always be regarded by municipal bodies throughout the country. Among the men of science were Sir John Herschel, Professor Owen, Dr. Lyon Playfair, and Dr. Forbes Royle; of the heads of Government departments, Mr. Cole, Mr. Rowland Hill, and Mr. Harry Chester; of engineers, Mr. Whiteworth and Mr. Crampton. There were present among the writers on the science and practice of agriculture, Mr. Caird, Professor Wilson, Professor Simonds, Mr. Cuthbert Johnson, and others. Mr. Alan Ransome, Mr. Garrett, and Mr. Dray not only came themselves, but exhibited some of their newest and best implements. Among foreign commissionners now visiting this country there were the Hon. H. Barnard, from the United States; M. Alexandre Adam, Mayor of Boulogne; M. Achille Adam, M. Léon de Rosay, M. Albert Chomel, M. Manuel de Arana, M. R. Allier, M. Wiencinski, and M. Mille. The Ven Archdeacon Burney and the Hon. and Rev. Lord Charles Hervey, with other clergymen, represented the connexion between the church and agriculture. There were also included in the company Mr. Commissionner Fane, Mr. Leoni Levi, Mr. Charles Knight, Mr. T. Grissell, Mr. Bird, Mr. Winkworth, Mr. Blood, Mr. B. Brown, Mr. F. O. Ward, Mr. Coppuck, Mr. Samuel Brooks, of Manchester, Mr. Telfer, a successful Scotch agriculturist, and a number of the most enterprising farmers in Suffolk and Essex. It will thus be seen that this year's meeting surpassed in the variety of interests and intelligence composing it that of any former one, and Mr. Mechi may very fairly be congratulated on the usefulness of his career which, after having exposed him to much ignorant ridicule, is at length applauded and honoured by such an assemblage. He has made failures, as what bold adventurous man does not occasionally? He has gone to work rather expensively sometimes; nor is it difficult to point out defects even now in his farming. Take for example the old-fashioned plan of laying out the land in beds with furrow drains, thus rendering the application of machinery

to its surface unnecessarily difficult. Still one is pretty sure to find all the novelties in agricultural improvement prominently displayed at Tiptree, and, if the experience of succeeding years sometimes detracts from the value of these as gauged by their sanguine promoter, he at least keeps moving in the right direction. Everybody now acknowledges that, whatever be the state of his balance-sheet, he has done an immense deal of good. As far as the public are concerned that is the main point; for if a man's mistakes or pecuniary sacrifices benefit them they are only the more bound to feel obliged to him.

But, turning from these general considerations to the details of yesterday's visit, let us endeavour to sketch the proceedings and the results which they present. According to his usual plan on these occasions, Mr. Mechi took his guests, after a slight refection, into his fields, and here, passing rapidly from point to point, he explained with a volubility and happiness of illustration peculiar to him everything that possessed interest, or upon which information was desired. Now on the confines of his farm he complacently contrasted his neighbour's wheat with a piece of his own adjoining it, stating why the one was better than the other, and the probable value of the avantage gained. Next he was standing before a fine field of oats, dilating upon the importance of thin sowing, answering vivaciously a sustained fusillade of questions, and promising himself a return of from 11 to 13 quarters per acre upon the crop. Then came the liquid manure distributor, with its hose scattering around it showers of refreshing aliment for plants. In five minutes Mr. Mechi had told his visitors all about it—how quickly the fertilizing products of his feeding sheds were on the land—in what quantity he could apply them—how digestible and direct the form in which they were presented—how wonderful the results in vegetation which they yielded; the mechanical and chemical details of the process were dashed off in a few sentences, the folly of not utilizing town manure in the same manner inculcated, and immediately afterwards visitors and host were before one of Garrett's best portable thrashing machines, which the manufacturer proceeded to explain. Mr. Mechi had, some time ago, tested at Tiptree an American invention of this kind, and, nothing daunted by the present excellence of Garrett's described its superior merits in some respects, urging the implement-makers to get rid as much as possible of the reciprocating action in their machines, to produce them lighter and cheaper, to work out the problem of steam cultivation, and generally to go a-head. In this manner he took his guests from field to field, stopping at one point to show the spring running 40,000 gallons a-day, with which he liquifies his manure, at another to show his mode of folding and feeding sheep; again, he read a letter from Mr. Kennedy, the Scotch agriculturist, recording what a surprising increase of food for stock he had obtained by the use of liquid manure. His corn and mangold crops excited general admiration, and on no former occasion has he shown anything like them. The wheats especially are magnificent, up-standing, even in growth, large-eared, and so high that some adventurers who started to explore a field sown with "Payne's Defiance" were at once shut out of view by the waving and luxuriant mass of vegetation. In the management of his Italian rye grass Mr. Mechi's farming shows to the least advantage, but for this, as Mr. Caird very properly observed after dinner, the dry climate of the Eastern Counties is somewhat responsible. In making the round of his farm Mr. Mechi delivered a succession of short but very amusing and vigorous peripatetic lectures on almost every important point connected with agriculture. His visitors were delighted with the freshness, the good humour, the volubility, and, in the main, the soundness of these expositions. They certainly have a stamp about them which nobody but Mechi could give, and his field preachings on agriculture are alone worth travelling a long distance to listen to. There was not time left before dinner to examine the feeding sheds, the stock, and the general arrangements of the homestead, but enough had been seen to satisfy the keenest appetite for improved cultivation. Smart exercise in the fresh air had now brought a large proportion of the guests into a frame of body and mind thoroughly calculated to do justice to the ample provision which their host had prepared for them. In a spacious tent erected for that purpose, they sat down to the number of nearly 300, and there the evening was most agreeably terminated in that round of toast and speechmaking which seems an indispensable condition of festive meetings in the country.—*London Times.*

In consequence of the war with Russia, from which the principal portion of our supply of hemp and flax is drawn, the energetic people of the United States are turning their attention to the growth of hemp. That of flax, will, without doubt, be taken up with equal alacrity, both there and in British America.

With our usual deliberate and conservative mode of proceeding, and our veneration for things as they are, we shall probably follow, in this matter, the same course of action which has characterised the education question, the sanctuary question, and the agricultural application of the refuse of towns. We shall discuss it for the next twenty years, shall proclaim the attempt to be visionary, theoretical, hopeless; and shall only set ourselves at work in earnest to grow a larger breadth of flax by the time peace shall be proclaimed, and the Americans shall be in possession of the void which Russia has left in our market.

Even before the war commenced, there was a desire on the part both of the agricultural interest and those engaged in the linen manufacture, that the supply of home-grown flax should be increased, but there the matter has hitherto ended. In the meantime, our flax-spinning machines have continued, year by year, to devour more foreign fibre. Our importation of flax, for the ten years ending 1851, amounted to 70,000 tons annually. In the three years 1840, 1841, 1842, the average annual importation was 62,500 tons. For the three years 1848, 1849, 1850, it had increased to 83,800 tons. The difference may be considered equal to the produce of 84,000 acres. The number of spindles employed in the United Kingdom in spinning flax amounted, in 1851, to 1,068,000; of which Ireland had 500,000. Scotland 303,000, and England 265,000.

The greatest number of spindles out of Britain is in France, which has 350,000; but on the continent, in general a vast amount of flax continues to be spun by hand. Belgium has 100,000 spindles, Holland only 6,000, Russia 50,000, Austria 30,000, the States of the Zollverein 80,000. Switzerland 12,00, and the United States of America 15,000.

America is our best customer for linen. Thirty-nine millions of people in the States consume annually more than two yards each to the value of 1s. 3½d. sterling, Canada takes to the value of 1s. 6½d. per head; while Europe, with a population of 228 millions, takes only 1-38th of a yard each. The difference between the demand from the New World and the Old arises from two causes—the first is the pertinacity with which high duties on imported linen are maintained in most of the countries of Europe; the second is the preference for cotton garments which prevails in Asia and Africa.

Besides the extensive and continually increasing quantities of flax fibre which we receive from other countries, we import annually 650,000 quarters of linseed and 70,000 tons of oilcake. As one of the first commercial effects of the war, our flax mills are running short time for want of flax; and in addition to the loss which our farmers will sustain from a diminished supply and an increased price of guano, they will soon suffer from a deficiency of oilcake These difficulties must be overcome by an increased growth of flax, and the consumption by cattle on the land of the linseed grown upon it.

The flax culture, as practised before the revolution which spinning and machinery effected in the linen trade, was a domestic manufacture. The grower prepared the fibre for market. In many cases he spun it and wove it at home. In Ireland, the linen trade combined with other causes to produce that excessive subdivision of land which has been the bane of that country. The Irish farmer, in the most flourishing districts, was merely a weaver, holding land enough to raise his own food and raw mater-

ial. The linen trade, thus conducted, has deserted those districts, and left them burthened with the subdivided farms and a pauper tenantry, till the potato rot, and the emigration which has followed in its train, produced another social revolution.

The great obstacle to the growth of flax in England is the want of an intermediate interest to buy the straw from the grower, and to prepare the fibre for the spinner. Conducted on the old system, it is only adapted to small occupations, like those of Belgium and Ireland. Even in Ireland, the want of this immediate interest is strongly felt, and strenuous exertions are being made to supply it. New processes of preparing the fibre are moreover being introduced, which cannot be carried on upon the farm, but require separate establishments, and which appear likely to supersede the old method of steeping, just as the steam-driven spindles and powerlooms have superseded the spinning wheel and handloom.

Two years ago the most promising of these new processes appeared to be that of Schenck, which consisted in steeping the flax in hot water, and thus effected in from 72 to 96 hours what under the old system occupied from two to three weeks. In 1852, 20 retteries on this system were established in Ireland, besides several in England.

Since then two other processes have been patented, which as far as trials on a small scale have gone, appear to be superior to Schenck's, both as regards the saving of time and expense. One of these is by Watts. It consists in steaming the straw, instead of steeping. The other method is Buchanan's, who operates by means of repeated immersions (about 10) in hot water, kept by a very ingenious contrivance from exceeding a certain temperature. The process is conducted by means of cheap and simple machinery, by which labour is saved, the risk of loss from carelessness avoided, and the time required for the preparation of the fibre is reduced to 12 hours. The system is now being tested on a commercial scale in Scotland.

It has been well observed that the chief impediment to the growth of flax consists in the question "Who is to begin?" The farmer does not grow flax for want of the rettery, and the rettery is not established for want of the flax. Another difficulty arises out of the continued improvements which are going on in the processes for preparing the fibre, and the perplexity which this occasions among those who are disposed to embark in the undertaking, as to which they shall adopt. The scarcity of flax, however, which the war is producing, will probably lead to a cutting of the knot. The manufacturers, in their eagerness to obtain a supply, will be inclined to make a little dash in establishing retteries.

They will commence with Schenck's, as that which has been the most tested; and if they find that either of the new processes proves better, they will, with the usual manufacturing enterprise, remodel their establishments and adopt the new processes without delay and regardless of cost.

The manufacturers are the parties who should make the first move, by establishing retteries and offering a liberal price to the farmers for their straw. The districts best suited to the experiment are those in which the cultivation of flax formerly flourished, and in which the agricultural population are not wholly strangers to its management.—*Mark Lane Express.*

Potato Crop.—We are happy to state that up to this time, July 22nd, after nine years' unsuccessful cultivation of the potato, we have no reason to pronounce a recurrency of disease in the tenth crop of 1854. About a fornight ago, during the time of a remarkable humid, lurid, and sunless atmosphere, we heard of the actual presence of spotted leaves, and here and there a diseased tuber, and some unmistakable infected leaves have been sent us in letters from distant parts, for ocular demonstration. By this time we hope and trust that this fungus on such specimens is now starving, or absorbing, and is overcome by the present and welcome hot sunny weather, and that the tubers are mostly thus preserved. In short, in this district (Essex), where most people have availed themselves, by our advice, of the opportunity of procuring early dwarf kinds, they are now fast ripening with a healthy yellow hue, and bidding difiance to the disease; and none are in danger here, except late varieties, which we are not so mad now either to venture or recommend. We have no doubt that by future adherence to dwarf early varieties and early planting we shall then be able, as we are now, to say, "Good bye to potato disease." Of about ten selected early varieties we cultivate, all are at this time (July 22) fast maturing, and are free from tainture. We are also equally successful this season in raising sound lillywhite, and fresh early varieties from our selected seed (not tubers), which have hitherto baffled our imaginations, by sharing the same fate as others. It is a most remnrkable fact that this year such crops as are most susceptible of blight, mildew, louse, and numerous other insects, are, with exception of the beans, and hop, and a few others, comparatively free from those pests, which are now so prevalent. Instance the ill-fated potato, the pea, and the cabbage, and some others.—*Abraham Hardy & Sons*, seed-growers, Maldon, Essex.

Farms and Farmers.—Farms occupy two-thirds of the land of England. The number of the farms is 225,318; the average size is 111 acres. Two-thirds of the farms are under that size, but there are 771 of above 1,000 acres. The large holdings abound in the south-eastern and eastern counties; the small farms in the north. There are 2,000 English farmers holding nearly 2,000,000 acres; and there are 97,000 English farmers not holding more. There are 40,650 farmers who employ five labourers each; 16,501 have ten or more, and employ together 311,707 labourers; 170 farmers have above 60 labourers each, and together employ 17,000.—*Census Report.*

CAMBRIDGE CATTLE MARKET.—Aug. 23.

Market Beef—Extra, (including nothing but the best large Oxen, well stall fed at least one year,) $8,50 per cwt—1st quality, (consisting of large fat Oxen, stall fed at least sevenths,) $8—2nd quality, (consisting of the best grass fed Oxen, the best stall fed Cows, and the best three old Steers, $6½ a $7—3rd quality, £5½ a $6—ordinary, $4 a $5. Hides—$6 a $6¼ per cwt. Tallow, $8 a $8¼. Pelts—37 a 62c. Calf Skins, 14 a 15c per lb. Veal Calves—$5, 6, 7 a $8; but few at market. Stores—Working Oxen—$62, 68, 71, 74, 75, 76, 82, 84, 97, 105, 112, 125 a $210. Cows and Calves—$18, 22, 28, 31, 36, 42, 44, 48, 50 a $68. Yearlings—$7, 8 a $9. Two years old—$14, 15, 19, 21, 24, 26 a $30. Three year old—$25, 28, 32, 34, 37, 41, 43, 44 a $48. Sheep and Lambs 4568 at market. Prices—Extra, $4, 4¼, 5, 6 a $7. By lot—$1½, 1¾, 2, 2¼, 2¾, 3 a 3½. Swine—Wholesale, still fat hogs 4½c, and corn fed 5c per lb.

MONTREAL WHOLESALE MARKET PRICES.

Rates at which produce is purchased from the Farmers.

Hay per 100 bundles, old, none offering.
Do. do new, from 12 to $13
Straw do 7 to $8½.
Eggs, per dozen, from 7½d to 8d.
Fresh Butter, per lb, from 1s 1d to 1s 3d.
Salt Butter, do from 10d to 11d.
Country Cheese, do 6d to 7½d.
Wheat, per minot, from 8s 3d to 8s 6d.
Barley, do none in market.
Rye, do do do
Oats, do from 3s to 3s 3d.
Indian Corn, do from 4s 3d to 4s 6d.
Buckwheat, none.
Peas, from 5s to 5s 6d.

There is no new grain coming in as yet.

Beef, per 100 lbs, from 4 to $7.
Mess Pork, do from 19 to $19½.
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HEW RAMSAY,
St. Francis Xavier St.

Montreal, April 28, 1854.

CATTLE SHOW AND PLOUGHING MATCH.

THE MEGANTIC AGRICULTURAL SOCIETY, No. 1, will hold their ANNUAL CATTLE SHOW and PLOUGHING MATCH, on the 11th and 12th Days of OCTOBER next.

The PLOUGHING MATCH at Mr. JOHN ROSS'S Farm, and the CATTLE SHOW at the AGRICULTURAL HALL, Township of Leeds.

By Order,
JOHN HUTCHISON,
Sec'y.-Treas.

Leeds, 28th Aug., 1854.

AGRICULTURAL SOCIETY, No. 1,

FOR THE

COUNTY OF TWO MOUNTAINS.

THE ANNUAL EXHIBITION of this Society will be held at the Village of LACHUTE, near the residence of John Meikle, Esq., on WEDNESDAY, the 27th day of SEPTEMBER next, at TEN o'clock, A. M. When the following PREMIUMS will be awarded :—

	Premiums.
Stud Horses,	3
Brood Mares and Foals,	5
Draught Horses, exhibited at Ploughing Match,	3
Stud Colt, 3 years old,	3
Stud Colt, 2 years old,	3
Filly, 2 years old,	3
Yearling Colts,	2
Old Bulls,	3
Bulls, 2 years old,	3
Yearling Bull,	2
Milch Cows,	4
Pair 2 year old Heifers,	3
Pair 1 year old Heifers,	2
Rams, 2 Shear,	4
Rams, 1 Shear,	3
Ewes, 3 in number,	3
Yearling Ewes, 3 in number,	3
Young Boar, under 9 months,	3
Aged Sow, over 9 months,	3
Young Sow, under 9 months,	3
Manufactures.	
Tinette of Butter, 30 lbs. or upwards,	4
Three new Cheeses, 15 lbs. or upwards each,	4
Etoffe du Pays, piece of 16 yards, or upwards, home manufactured, within the limits of this Society,	4
Dressed Cloth, piece of 16 yards or upwards, manufactured within the limits of this Society,	4
Piece of Flannel, 16 yards or upwards, manufactured within limits of this Society,	4
On Best Managed Farms of 60 acres or upwards, 8 Premiums,	

Grain and Green Crops.

	Quantity.	Premiums.
Wheat,	3 acres,	4
Barley,	2 do	3
Oats,	3 do	4
Peas,	2 do	3
Maslin,	3 do	4
Rye,	3 do	3
Hay,	3 do	4
Potatoes,	2 do	4
Corn,	2 do	4
Carrots,	¼ do	4
Rutabaga,	¼ do	4
Mangel Wurzel,	¼ do	3

PLOUGHING MATCH.

Notice whereof will be given on day of Exhibition.

	Premiums.
Men's Class,	4
Boys' under 21 years,	6

ABSTRACT OF BY-LAWS.

Every competitor must be a member of the Society, and all articles and animals (males excepted) must be the property of the competitor.

No Stud Horse or Bull shall be entitled to a prize that has not been kept in this division of the County, during the season of service, previous to day of Exhibition.

Rams to be kept by the successful competitors thereon till the first January after this Show, and members of this Society will be entitled to service of same during the required season at 2s. 6d. each Sheep.

Boars to be kept by the successful competitors till the first of February following. Members will be entitled to service of same during the season at 2s. 6d. each Sow. These premiums will remain in the hands of the Treasurer until the expiration of the terms above mentioned and on production of a certificate by the competitor confirming the same, the premiums will be paid as awarded.

All animals and articles entered for competition by members must be on the ground by TEN o'clock, A.M,, of the day of the Exhibition, and for which each competitor must pay the Secretary 1s. 3d. towards the funds of the Society. All Cattle must be tied to the rings prepared for that purpose.

All competitors at the Ploughing Match must be members, members' sons residing with the father, or servants in the employ of members for a period of not less than one month immediately preceding. The first succesful competitors in Boy's Class last year, to compete in Men's Class.

Draught Horses must plough on day of Ploughing Match.

Premiums will be awarded on any Improved Agricultural Implement, or any manufactured articles of a superior description, and all Ploughs entered for competition are to be tried at Ploughing Match.

No Cloth made in a Factory to be entitled to a Premium and no Manufactures but those of the present year to be entered.

Animals or Articles of an inferior description will receive no Premium though they be alone in competing Class.

Competitors on Grain and Green Crops are to give all such information as may be required, to the crop viewers under pain of forfeiture of Premium ; so as to enable them to make a correct report.

Parties wishing to compete on Grain and Green Crops must give in their names to the Secretary before the 1st August.

Parties receiving first Prize on best Msnaged Farms, (last year included,) are not to compete for the three subsequent years.

All disputes arising respecting the award of Premiums to be finally settled by the Board.

By Order,
H. HOWARD.
Secretary-Treasurer.

St. Andrews, 21st July, 1854.

NOTICE.

THE FALL SHOW of the SHEFFORD COUNTY AGRICULTURAL SOCIETY, No. 1, will be held at WATERLOO, C. E., on TUESDAY, the 5th day of SEPTEMBER next,—also, the WINTER SHOW will be held at FROST VILLAGE, on the SECOND TUESDAY of JANUARY, 1855.

By order,
CHARLES ALLEN,
Secy.-Treas.

Waterloo, July 24, 1854.

THE AGRICULTURAL SOCIETY
OF THE
COUNTY OF HUNTINGDON,
No. 1,

OFFER the following Premiums for Competition for 1854:

On Wheat, five Premiums, first 25s, second 20s, third 15s, fourth 10s, fifth 5s; and upon Peas, Oats, Barley, Corn, Potatoes, and Hay severally, the same amount and the same divisions as on Wheat. On Carrots, four Premiums of, first 20s, second 15s, third 10s, fourth 5s; and upon Mangol Wurtzel and Ruta Baga, the same number and amount, and the same as on Carrots.

ON HORSES.

	No. of Premiums.	Shillings.
Stallions aged,	4	40 30 20 10
Three year old Stallion Colts,	3	30 20 10
Two Year ditto ditto	3	20 15 10
Brood Mare and Colt	5	35 30 25 20 15
Three year old Filly	4	25 20 15 10
Two year ditto ditto	3	20 15 10
Yearling Colt	3	15 10 5
Yearling Filly	3	15 10 5
Three year old Gelding Colt	3	15 10 5
Two year ditto ditto	3	15 10 5
Pairs matched Horses in Harness	3	30 25 20

ON NEAT CATTLE.

	No of Premiums.	
Bulls aged	4	30 25 20 15
Two year old Bulls	4	30 25 20 15
One year ditto ditto	3	20 15 10
Cows	7	35 30 25 20 15 10 5
Two year old Heifers	4	20 15 10 5
One year ditto ditto	4	20 15 10 5
Yoke of Oxen in the Yoke, three years old and over	3	20 15 10
Best lot of Fat Neat Stock, two animals or more, not less than three years old	3	25 20 15

ON SHEEP.

	No. of Premiums.	
Rams aged	4	25 20 15 10
One Shear Rams	4	25 20 15 10
Ewes, pen of 3	5	25 20 15 10 5
One Shear Ewes, pen of 3	5	25 20 15 10 5

ON SWINE.

	No. of Premiums.	
Boars	4	25 20 15 10
Breeding Sows	4	25 20 15 10

BUTTER.

	No. of Premiums.	
30 Pounds and upwards	5	25 20 15 10 5

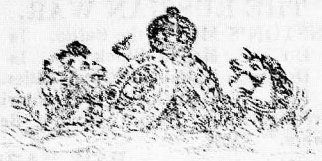
CHEESE.

	No. of Premiums.	
50 Pounds in one or more	5	25 20 15 10 5

The CATTLE SHOW will be held at the Village of LACOLLE, on WEDNESDAY, the 27th day of SEPTEMBER next; Competitors to be on the Show Ground at 9 o'clock, A. M.

THOS. GORDON,
Sec.-Treas.

Lacolle, 7th July, 1854.



NOTICE

IS hereby given to the Censitaires in the Seigniories of Lauzon, Sillery, Notre-Dame des Anges, St.-Gabriel, Belair, Batiscan, Cap de la Magdeleine and Laprairie and to those in the Fiefs and Arrière-Fiefs, belonging to Her Majesty, situate in the City of Quebec, the Town of Three-Rivers and their Banlieues, or in any other part of Lower Canada, that His Excellency the Administrator of the Government, desiring to facilitate the change of tenure in these Seigniories and Fiefs, has directed, by and with the advise of His Council, that any purchaser, who within one month from the date of his purchase, shall make application and commute the tenure of the property acquired, in conformity to the Provincial Statute, 10 & 11 Vict. Ch. 111, will obtain a remission of the Lods and Ventes due upon his purchase, provided he pays cash the indemnity fixed by law, or at least twenty-five pounds, if the property is situated within the City and Banlieue of Quebec; and twelve pounds ten shillings, if out of these localities, when such indemnity exceeds these respective sums.

A. N. MORIN,
Commissioner of Crown Lands.

Crown Lands Office, Quebec, 29th May, 1854. } 6m 1 July

1854.

COUNTY OF MONTREAL AGRICULTURAL SOCIETY.

THE Subscribers to the funds of the Society generally, are notified, that TWO THOROUGH BRED AYRSHIRE BULLS have been imported, one is kept at the Stables of John Dods, Esq., at Petite Cote, in the Parish of Montreal;—the other, at the Stables of James Powley Dawes, Esq., at Lachine in the Parish of Lachine; each Member of the Society for the current year, has the right of the gratuitous use of his choice of either Bull for one Cow, but must pay a fee of 3s 9d for every other Cow sent.

Members are requested to send their tickets of Membership, and money with every second or other Cow, if more than one be sent, as all payments must be made strictly in advance, otherwise no service will be rendered. By order,

JAMES SMITH, *Sec.*

Montreal, 1st July, 1854.

PRINTING AND BOOKBINDING.

THE undersigned executes with neatness and despatch, and at moderate prices, all kinds of PRINTING, such as, BOOKS, CATALOGUES PRIZE LISTS, CARDS for CATTLE SHOWS, &c. —ALSO— BOOKBINDING, either Printed Books, or Merchants Ledgers, Journals, &c.

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HEW RAMSAY.

NOTICE.

THE COUNTY OF SHEFFORD AGRICULTURAL SOCIETY No. 2, will hold its ANNUAL EXHIBITION of Stock or Cattle Show, at the VILLAGE of GRANBY, on WEDNESDAY, the 13th day of SEPTEMBER next, commencing at TEN o'clock, A. M.

By order,
F. WOOD, *Secy.-Treas.*

Granby, June 27th, 1854. 3

RECENTLY PUBLISHED.

COMPLETE in two volumes Royal 8vo., The FARMER'S GUIDE to SCIENTIFIC and PRACTICAL AGRICULTURE. Alias the new and only correct edition of "STEPHENS'S BOOK of the FARM." By Henry Stephens, F.R.S., of Edinburgh. With an American Appendix, by J. P. Norton, Professor of Scientific Agriculture in Yale College, New Haven.

LETTER FROM MR. STEPHENS.

"REDBRAE COTTAGE, EDINBURGH, Sept. 30, 1851.

"MESSRS. LEONARD SCOTT & CO.,

"Gentlemen—I beg to say that your '*Farmer's Guide*' is the only genuine edition published in the United States of America of my work the '*Book of the Farm.*' The edition circulating at present in the States under the title of the 'Book of the Farm' is taken from the first edition of my work, written ten years ago, which, in my second edition, I entirely remodelled, and in great part rewrote, adopting all the more recent improvements in the practice of agriculture suggested by scientific experiment, and making it, in effect, quite a new book.

"I am, Sirs, your obedient Servant,
"HENRY STEPHENS.

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NOTICE TO FARMERS.

THE MUTUAL FIRE INSURANCE COMPANY of the COUNTY OF MONTREAL, insures the properties of farmers in Lower Canada, at 5s. for £100 currency, for 3 years, &c.

Apply at the office, *St. Sacrament Street*, Montreal; to the Agents in the Country; or to the undersigned Directors:—

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Frs. Quenneville,	"	St. Laurent.
Joseph Laporte,	"	Pointe-aux-Trembles.

P. L. LE TOURNEUX,
Secretary and Treasurer.

Montreal, 1st July, 1854.

PRINTING IN BOTH LANGUAGES

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H. RAMSAY.

Farmer's Journal Office.

NOTICE.

THE MEGANTIC AGRICULTURAL SOCIETY, No. 3, will hold their AUTUMN SHOW on the Farm of IRA HALL, Esq., on the GOSFORD ROAD, in the Township of Ireland, on WEDNESDAY, the 4th day of OCTOBER next.

It is intended to have a Sale for Cattle and Horses at the close of the Show.

By order of the Board,
JOHN HOUGH, Sec'y-Treas.
Ireland, Aug. 17th, 1854. 1

NOTICE

IS hereby given that the EXHIBITION of the OTTAWA AGRICULTURAL SOCIETY, No. 3, will be held on WEDNESDAY, the 4th day of OCTOBER, 1854, in the Township of Wakefield, at the Mouth of the RIVER LA PESCHE.

By order,
JOSHUA BREADNER,
Secretary-Treasurer.
Wakefield, Aug. 15th, 1854. 1

NOTICE.

MR. WILLIAM BROWN, of the Firm of COCKBURN & BROWN, Nurserymen, Seedsmen, and Florists, Montreal, being about to make a prolonged visit to Europe, offers his services to Agricultural Societies, Farmers and others, for the purchase and shipment of Seed, Grain, Implements, Stock, &c. Terms and particulars can be obtained, by addressing Messrs. Cockburn & Brown, at 40, *Great St. James Street*; or orders (in all cases accompanied by a Bill of Exchange, for the probable amount of the purchase), may be sent direct to Mr. Wm. Brown, 1, Cumberland Street, Glasgow, Scotland.

Montreal, 15th August, 1854. 3 m

AGRICULTURAL SOCIETY, No. 2,
OF THE
COUNTY OF HUNTINGDON.

THE PUBLIC EXHIBITION will be held at the VILLAGE of LAPRAIRIE, on TUESDAY, the 26th SEPTEMBER next, at NINE o'clock, A. M., when the following Premiums will be awarded:—

HORSES.

	$	$	$	$
Best Draught Stallion, (4 years or over), 5 prems	7	6	5	4 3
Best Saddle Stallion, (4 years or over), 3 prems			6	5 4
Best Pair of Draught Horses, 4 prems.			5	4 3 2
Best French Mares and Foals, 4 do			6	5 4 3
Best English do do 4 do			6	5 4 3
Best 3 years old Horse Colts, 5 do		6	5	4 3 2
Best 3 do Mare do 4 do			5	4 3 2
Best 2 do Horse do 3 do				4 3 2
Best 2 do Mare Colts or Geldings, 4 prems.				4 3 2 1
Best 1 year old Mare Colts or Geldings, 4 prems.				4 3 2 1

BULLS.

Best 3 years old Bull, (or upwards), 3 prems.			6	5 4
Best 2 years old Bull, 3 prems.			5	4 2
Best 1 do do 3 do			4	3 2

MILCH COWS.

Best Milch Cow, 6 prems.	6	5	4	3	2	1
Best Pair 2 years old Heifers, 3 prems.				4	3	2
Best do 1 do do 3 do				3	2	1

SHEEP.

Best 2 Shear Ram, (or upwards), 3 prems.			6	5 4
Best 1 Shear Ram, 3 prems.			6	5 4
Best 2 Shear Ewes, (1 pair), 3 prems.			5	4 3
Best 1 do (do) 3 do			5	4 3

SWINE.

Best Boar, (not over 3 years old,) 2 prems.			4 3
Best Boar, 6 to 12 months old, 3 prems.			4 3 2
Best Sow, (having young this season), 3 prems,			4 3 2

MANUFACTURES.

Best piece of Etoffe, all Wool, (not less than 15 yards), 3 prems.			4 3 2
Best piece of Flannel, do do 3 prems.			3 2 1
Best piece of Linen, do do 3 prems.			3 2 1
Butter, (not less than 30lbs), 4 prems.			4 3 2 2
Cheese, (not less than 20lbs), 3 do			4 3 2

RULES AND REGULATIONS.

1. No person shall compete, unless his subscription be paid one month before the day of Exhibition.
2. All animals (imported male animals excepted) must have been owned and kept in the County 6 months before the Exhibition.
3. No person shall be entitled to receive more than one premium in the same class.
4. No female animals having taken the 1st premium in this Society, can compete the ensuing year.
5. All Horses and Horned Cattle (sucking colts excepted) to be tied up according to their respective classes.
6. The Judges to be at liberty to withhold premiums where the animal or article is inferior.
7. All disputes to be settled by the Committee.
8. All animals and articles must be fed and manufactured in the County—on oath if required.

By Order,
JOHN DUNN,
Secy.
Laprairie, 14th July, 1854.

AGRICULTURAL SOCIETY
COUNTY OF BEAUHARNOIS.

ON TUESDAY, the 26th SEPTEMBER, next, a CATTLE SHOW will be held at the Village of HEMMINGFORD, SCRIVER'S CORNERS, and the following Premiums awarded, viz:—

For Horses.

	s.	s.	s.
Class 1. Brood Mares for Draft, 3 premiums	50	40	30
2. 2 years old Horse Colt, for Draft, 3 do	30	25	20
3. Do. Gelding or Filly, for Draft, 3 do	30	25	20
4. Pair of Horses, for Draft, 3 do	50	40	30
5. Brood Mare, for the Saddle, 3 do	50	40	30
6. 2 year old Horse Colt, for the Saddle, 3 do	30	25	20
7. Do. Gelding or Filly, for the Saddle, 3 do	30	25	20

For Cattle.

Class 8. Bull of 1 year old, 3 do	30	25	20
9. Pair of 1 year old Steers, 3 do	25	20	15
10. Do. 2 years old Steers, 3 do	25	20	15
11. Do. 1 do. Heifers, 3 do	25	20	15
12. Do. 2 do. do, 3 do	25	20	15
13. Milch Cow, having had a Calf, before 1st June last, 3 do	30	25	20
14. Pair of Working Oxen, 3 do	30	25	20

For Sheep.

Class 15. Ram, 3 do	30	25	20
16. Ram of one shear, 3 do	25	20	15
17. 3 Ewes, having had Lambs this year, 3 do	30	25	20
18. 3 Ewes, 1 shear, 3 do	25	20	15
19. 3 Ewe Lambs,	25	20	15

For Swine.

Class 20. Boar, 3 do	30	25	20
21. Boar, under 1 year old, 3 do	25	20	15
22. Brood Sow, 3 do	30	25	20
23. Pair of Pigs not over 6 months old, 3 do	25	20	15

For Dairy Produce.

Class 24. 2 Cheeses, not less than 10 lbs. each made in 1854, 3 do	25	20	15
25. Firkin of Butter, not less than 20lbs., 3 do	25	20	15
26. Do. do., not less than 50 lbs. cured, and packed for exportation by a Farmer, 3 do	30	25	20

For Domestic Manufactures.

Class 27. Piece of *Etoffe*, (fulled but not shorn), measuring not less than 15 yards, 3 do	25 0	20 0	15 0
28. Piece of Flannel, not less than 15 yds. 3 do	25 0	20 0	15 0
29. Sample of Worsted, not less than 2lb., 3 do	12 6	10 0	7 6
30. Sample of Woollen Yarn, not less than 2lb., 3 do	12 6	10 0	7 6
31. Pair of Knitted Worsted Socks, 3 do	12 6	10 0	7 6
32. Pair of Knitted Worsted Stockings, 3 do	12 6	10 0	7 6
33. Shawl, 3 do	12 6	10 0	7 6
34, Counterpane, 3 do	12 6	10 0	7 6

For Agricultural Implements.

Class 35. Reaping Machine, owned by a resident, and to be kept in the County for the next 12 months,	1 prize.	£7 10 to be left to the Judges for distribution.
36. Cheese Press,	1 do.	
37. Churn,	1 do.	
38. Improved Agricultural Machines and Implements, such as Mowing Machines, Horse-Rakes, Horse-Hoes, Grubbers, Ploughs, Harrows, Manure Forks, Hay Forks, Dairy Utensils, &c. manufactured in the County, each,	1 do.	

For Fruit.

Class 39. Bushel of Table Apples, 3 do	25	20	15
40. Bushel of Baking do, 3 do	25	20	15

Every Competitor shall be a Member of the Society, and have paid his subscription, at least, ten days before the Show.

No Competitor shall be allowed to obtain more than one Premium in the same Class.

All Animals, (imported Male Animals excepted), must have been the property of the Competitor at least three months previous to the Show.

Etoffe and Flannel, Shawls and Counterpanes, must have been made during the present year, and Worsted and Woollen Yarn spun, and Socks and Stockings knitted in the house of the Competitor, by a member of his family, also during the present year.

The Judges shall be at liberty to withhold any Premium, if they consider the Animal or Article entered, not deserving thereof.

All Competitors will be required to enter their Stock, &c., in the Secretary's Books, at Scrivers's Hotel, by ten o'clock on the morning of the Show, and to conform to the Society's Rules and Regulations.

No Competitor to have his name or initials on any Firkin, Bag, &c., containing articles to be exhibited.

The Officers, Directors, Judges and Members of the Society, will dine at Scriver's, after the proceedings of the day. Dinner at 4 o'clock. All Competitors who have obtained FIRST PRIZES will be required to attend it.

A Fair for the sale of Fat Cattle, Stock, &c., will be held the following day.

By order,
R. H. NORVAL, Secy.-Treas.
Beauharnois, 9th Aug., 1854. 1

NOTICE.

THE AGRICULTURAL SOCIETY No. 2, of the County of LEINSTER, will hold its ANNUAL EXHIBITION of STOCK, GRAIN, MANUFACTURES, &c., at the Village of RAWDON, on WEDNESDAY, the 11th OCTOBER next, commencing at 10 o'clock, A. M.

By Order,
J. HORAN, Secy.

Rawdon, 10th August, 1854. 1

Board of Agriculture—Lower Canada.

NOTICE.

THE COUNTY and SECTIONAL AGRICULTURAL SOCIETIES, regularly organized in LOWER CANADA, who have not yet sent to the Undersigned their attested LISTS of MEMBERS, and PAID UP SUBSCRIPTIONS for the present year, are requested to do so with as little delay as possible, in order to their being duly reported to the Honble. the Minister of Agriculture, and the Government allowance to which each may be entitled, applied for. By Order,

WM. EVANS,
Sec.-Treas. Board of Agriculture.

Montreal, 29th July, 1854.

FAIR AND CATTLE SHOW
OF THE
MISSISQUOI COUNTY
AGRICULTURAL SOCIETY, No. 2.

AT a MEETING of the PRESIDENT and DIRECTORS of the County of Missisquoi Agricultural Society, No. 2, holden at Bedford, on Saturday the 11th day of March, 1854, it was resolved to offer the following Premiums for competition for the present year, viz :—

Premiums:—	1	2	3	4	5	6	7	8	9
For the best cultivated Farm, not less than 50 acres,	Dollars. 13	12	11	10	9	8	7	6	5
For the best acre of Winter Wheat,						7	6	5	4
For the best acre of Spring Wheat,				7	6	5	4	3	2
For the best acre of Indian Corn,			9	8	7	6	5	4	3	2
For the best acre of Oats,				6	5	4	3	2	1
For the best acre of Oats and Peas,					5	4	3	2	1
For the best acre of Rye,					5	4	3	2	1
For the best acre of Potatoes,						4	3	2	1
For two acres of the best Grass, first crop after seeding,						4	3	2	1
For the best acre of Beans,						4	3	2	1
For the best Kitchen Garden,						6	5	4	3	2
ON STOCK.									
For the best Stud Horse,							7	6	5
Brood Mares,					7	6	5	4	3	2
For the best Mare or Gelding, over 4 years and under 9 years old,							4	3	2
For the best 3 years old Stud Colt,								3	2
For the best 3 years old Mare or Gelding,							3	2	1
For the best 2 years old Colt,							3	2	1
For the best yearling Colt,							3	2	1
For the best 2 years old Bull,						5	4	3	2
For the best yearling Bull,						5	4	3	2
For the best Milch Cow,					6	5	4	3	2	1
For the best 2 years old Heifer,						4	3	2	1
For the best yearling Heifer,							3	2	1
For the best pair of Working Oxen,						7	6	5	4
For the best pair of 3 years old Steers,						4	3	2	1
For the best pair of 2 years old Steers,						4	3	2	1
For the best pair of yearling Steers,							3	2	1
For the best Wool Ram,							3	2	1
For the best three Wool Ewes,							3	2	1
For the best Mutton Ram,							3	2	1
For the best three Mutton Ewes,							3	2	1
For the best Boar,							4	3	2
For the best Brood Sow, accompanied with Pigs,						4	3	2	1

WINTER SHOW.

Premiums:—	1	2	3	4	5
For 2 bushels of the best Timothy Seed,	Dollars.			3	2	1
For the best Tub of Butter, not less than 20lbs.,				5	4	3	2	1
For the two best Cheeses, weighing not less than 15lbs.,				4	3	2	1
For the best Fattened Ox,				4	3	2	1
For the best Fattened Cow,				4	3	2	1
For the best Fattened Hog,				5	4	3	2	1
For the two best Fattened Sheep,				4	3	2	1
For the best sample of Maple Sugar, not less than 20lbs.,					3	2	1

BY-LAWS.

The Crops of Winter Wheat, Rye and Grass, will be examined by the Judges on MONDAY, the 3rd day of JULY next, and following days.

That the Farms, Gardens, and all Spring Crops will be examined by the Judges on the first MONDAY of AUGUST next, and the following days.

The CATTLE SHOW will be held at the East Village in STANBRIDGE, on WEDNESDAY, SEPTEMBER 13th, 1854, at TEN o'clock in the forenoon.

All persons contributing Fifteen Shillings or more annually, to the Funds of the Society, may enter all animals or articles for competition free, and those contributing less than Fifteen Shillings annually to the Funds of the Society, shall pay the sum of sevenpence half penny on each and every animal or article entered for competition.

That no person shall be allowed to compete on Farms, who shall not pay Fifteen Shillings or more annually to the Funds of the Society, and that no person who has taken the First Premium last year shall be allowed to compete on Farms for the next five years.

That no person shall be allowed to compete on any animal unless he shall have been the real owner thereof six months before the Exhibition, except Stud Horses or Bulls, which may be allowed to compete for Premiums, if they have been kept for use within the limits of this Society, four months previous to the time of Exhibition.

That all the members of the Society pay to the Secretary-Treasurer, the amount of their subscription, on or before the 1st day of July next, and those intending to compete on Winter Wheat, Rye or Grass, must enter them to the Secretary on or before the 3rd day of July next at nine o'clock in the forenoon.

All persons intending to compete on Farms, Gardens, and all Spring Crops, must enter them to the Secretary on or before the 1st day of August next.

That no animal shall be allowed to draw the same or a less premium, in the class in which they were entered last year.

That no animal, article, or crop, shall be allowed to have any Premium awarded to them, if the Judges consider them unworthy.

All persons competing on Stock of any kind, must enter them to the Secretary, and cause them to be numbered and ticketed before ten o'clock in the morning of the day of Exhibition.

The Winter Show will be holden at Stanbridge East Village, on the first Monday of January next, at ten o'clock in the forenoon. All persons intending to compete on any animal or article, must enter them to the Secretary, and have them numbered and ticketed before that hour.

No person will be allowed to compete on any animal or article at the Winter Show, unless such animal was fattened by the competitor, or such article being the produce of his own Farm and made or manufactured by himself or his family or servants.

The By-Laws must be strictly complied with.

C. R. VAUGHAN,
1 Secy.-Treas., C. M. A. S., No. 2.

AGRICULTURAL SOCIETY,
ORMSTOWN.

ON WEDNESDAY, the 4th OCTOBER, next, a CATTLE SHOW will be held at the Village of DURHAM, ORMSTOWN, and the following Premiums awarded, viz. :

FOR HORSES.

Class.	s. d.	s. d.	s. d.
1. Best Brood Mares for draft, 3 premiums	25 0	20 0	15 0
2. Best 3 years old Gelding or Filly for draft, 3 do	15 0	10 0	7 6

FOR CATTLE.

3. Best Milch Cow, having had a Calf before 1st June last, 3 do	20 0	12 6	7 6
4. Best 2 year old Heifer, 3 do	10 0	7 6	5 0
5. Best 1 do do, 3 do	10 0	7 6	5 0

FOR SHEEP.

6. Best 3 Ewes, 3 do	12 6	10 0	7 6
7 Best Ram, 3 do	12 6	20 0	7 6
8. Best Ram one shear, 3 do	10 0	7 6	5 0
9. Best 3 Ewe Lambs, 3 do	10 0	7 6	5 0

FOR SWINE.

10. Best Boar, 3 do	12 6	10 0	7 6
11. Best Brood Sow, 3 do	12 6	10 0	7 6
12. Best Pair of Pigs not over 6 months old, 3 do	12 6	10 0	7 6

FOR DAIRY PRODUCE.

13. Best 2 Cheeses not less than 10lbs each, made in 1854, 3 do	12 6	10 0	7 6
14. Best Tinnet of Butter, not less than 30lbs, 3 do	12 6	10 0	7 6

FOR DOMESTIC MANUFACTURES.

15. Best Piece of Etoffe, (fulled but not shorn), measuring not less than 15 yards, 3 do	12 6	10 0	7 6
16. Best Piece of Flannel, not less than 15 yards, 3 do	12 6	10 0	7 6

Every Competitor shall be a member of the Society, and reside within the limits, Ormstown, Jamestown, North and South Georgetown, and have paid his subscription at least ten days previous to the show.

No Competitor shall be allowed to obtain more than one Premium in the same Class.

All Animals, (imported Male Animals excepted), must have been the property of the Competitor at least three months previous to the Show.

Etoffe and Flannel must have been made during the present year.

The Judges shall be at liberty to withhold any Premium if they consider the Animal or Article entered not deserving thereof.

No Competitor to have his name or initials on any Tinnet, Bag, &c., containing articles to be exhibited.

All Competitors will be required to enter their Stock, &c. in the Secretary's Books, at Fee's Hotel, at 10 o'clock on the morning of the Show, and to conform to the Society's Rules and Regulations.

The Officers, Directors, Judges and Members of the Society will dine at Fee's after the proceedings of the day. Dinner at 4 o'clock.

The Annual Fair for the Sale of Fat Cattle, Stock, &c., will be held the same day.

by order,
ROBERT MILLS,
Secretary-Treasurer.

Ormstown, 19th Aug., 1854. 1

SCHOOL REQUISITES.

PAPER, SLATES, SLATE PENCILS, MAPS, ATLASSES, GLOBES, &c., in great variety, for Sale, (Wholesale,) on the most reasonable terms, by

H. RAMSAY.

Montreal: Printed and Published by H. Ramsay, No. 21, St. François Xavier Street.

The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

VOL. II, No. 6, MONTREAL, OCTOBER, 1854. POSTAGE FREE. PRICE 2s. PER ANNUM, IN ADVANCE.

The Farmer's Journal.

PROVINCIAL EXHIBITION.

The great event of the year for the agriculturists of Lower Canada—their second Annual Exhibition took place on the 12th, 13th, 14th, and 15th of the last month, near Quebec, on the Plains of Abraham, already famed in history as having been before used by our ancestors as a field for competition, of a very different kind, nearly 100 years ago.

A more beautiful site could not have been selected. The ground sloping gently towards the St. Lawrence, commanded a full view of the busy scene enacting on its majestic waters, with Point Levi in the distance. About 20 acres were enclosed for the purposes of the Show—yet the ground was literally crowded for several hours, together on Thursday the principal day. The excellent arrangements and good order, supported by most beautiful weather, seemed to put every body in good humour with their holiday, and with pleasure do we add, that we did not hear of a single instance of intoxication on the ground during the whole time of the Exhibition.

HORSES.—The show of horses was the best that has ever been collected in Lower Canada. The Clydesdale pure and crossed with Canadian mares; noble animals for heavy draught were also well represented. Some small active Canadians had their admirers, but we must confess, that with all their merits, and they are many, they are not entitled to rank as the most remunerating class for our farmers to raise for market. They want height for carriage and saddle, and weight for heavy draught. There are exceptions to this observation, nevertheless it applies to the very great majority of the breed. A score or so of their ancestral stock from Normandy might be imported with advantage to the Province. Blood and carriage horses were few, but those few were good.

CATTLE.—*Ayrshires* of a superior quality mustered strong. They are a beautiful class of cattle and deservedly great favorites amongst us. Several of the cows and bulls had been imported from Great Britain and could not be surpassed.

SHORT-HORNS DEVONS AND HEREFORDS.—None like the noble short-horns which appeared at the Montreal exhibition were forthcoming, and the Devons and Herefords were absent altogether.

CANADIAN OR ALDERNEY.—Under this class were entered a number of ugly cross-bred beasts and premiums were awarded to them— we have not heard whether the Judges accompanied their awards with any observations to justify the conclusions they came to. But it was so papable that they were neither Canadian nor Alderney cattle, that the judges ought to have disposed of the whole posse with a couple of words—"none exhibited."

SWINE AND SHEEP.—There were only a few pens of each. Some good animals amongst them but nothing to excite particular attention.

POULTRY.—Cocks and hens of many weights colours and breeds from the 12lbs. Shangae to the 12 oz. Bantam attracted general attention. Several of the finest came from the neighbourhood of Boston and were disposed of at long prices to Canadian amateurs.

IMPLEMENTS.—Implements were very few—we endeavoured to see some of them tried but did not succeed—our disappointment was in common with several practical men who suggested that our future premium lists should mention the hour that the different implements are to be proved.

The mechanical and industrial branch had many things of interest which not being exactly in our line we have taken a description of from a contemporary.

We observed in attendance Major Campbell, Messrs. Watts, Dodds, Thompson and Deblois of the Board of Agriculture of Lower Canada, and Messrs. Thompson and Marks, Ex-Presidents of the Agricultural Association of Upper Canada, besides several leading agriculturists from different parts of the Province. The Governor General visited the ground on Thursday by invitation. An address was presented to His Excellency on the part of the Association, to which he answered in his usual happy style.

As all things are judged of by comparison we will say of this exhibition, as compared with that held last year in Montreal, that the arrangements in every respect were a decided improvement. We consider them so perfect as to be a model for future shows. The advantage of reporting to the Secretary the stock to be entered beforehand was most conspicuous, as well as of having different gates of admittance for the different classes of stock. The instant an animal appeared

at the gate his ticket of entry was required and he was sent to a stall already ticketted to receive him. Every thing went off with the regularity of clock work. Horses, Ayrshire cattle and poultry were also a step in the right way. Some good grain was shown, but nothing else could be considered a fair sample of what Lower Canada can produce. The weather was favorable, and the place not difficult of access. The public countenanced the undertaking most cordially with their presence. Why then was there such a falling off in the number of exhibitors as compared with the year before? The answer probably may be that several of them then came to Montreal from a distance and found it too expensive a business for repetition, expenses while there that seemed unnecessarily multiplied upon them as compared with their neighbours of Upper Canada and the United States. Parties having hereafter the management of our shows must endeavour to obtain from the steamboat and railway proprietors the same liberality of conveyance to property intended for exhibition, as is granted by the Americans and Upper Canadians. Such arrangements should be made at an early period, and published along with the premium lists, that parties at a distance may be aware of them in due time to get their stock into good condition against the time of Show. A farmer is willing to incur the risk (which is great) of moving his stock from one place to another, as well as to suffer the depreciation in their condition, which invariably happens on such occasions, but he is seldom able to bear the heavy cost of transport by rail or boat from distant points, and every exertion ought to be made to render it as little onerous a possible to the class for whose encouragement the institution has been established.

The *Quebec Chronicle*, the *Montreal Pilot* and the *Gazette*, and some other papers, are entitled to the thanks of the agricultural community for the frequent notice which they kindly gave of the exhibition.

We understand that the next annual meeting of the Association will be held at Sherbrooke. A few gentlemen on behalf of that locality guaranteed in a most liberal manner a contribution towards the expences of not less than £600.

The fact of a little town in the Back Woods having come forward with an offer of a sum exceeding that contributed by the City of Montreal and double that contributed by the Corporation of Quebec is most creditable to our friends, and we anticipate from its central position and the energy of the population of the townships that every success will attend it. We highly approve of the principle of holding the annual meetings in different parts of the Province and still more so of selecting those places which are liberal enough to compete for the preference in the handsome manner which Sherbrooke has done. It is an example which we hope to see repeated on future occasions by others of the rising towns within reach by rail or steam.

Ploughing Match.— In our advertising columns it will be observed that the County of Montreal Agricultural Society in addition to their ordinary prizes, offer a Purse of Forty Dollars to be competed for by Ploughmen residing in the Province of Canada. We hope this liberal offer will bring out such a number as will produce a spirited competition.

It will be seen, from an advertisement which appears in another column, that Mr. Dods, of Petite Coté, purposes to dispose of a part of his valuable stock by public auction on Thursday next, the 5th of October. So favourable an opportunity for procuring pure bred animals is of rare occurrence in this Province, and we trust our friends will be on the *qui vive*.

The most interesting topic of discussion at present is the result of the grain crop. The returns are very contradictory, and leave room for the inference that the distribution of fertility is, this year, very irregular.

The apprehensions of a short crop in the United States, seems very much diminished, and though the wheat may be deficient, the deficiency will be probably compensated by increased productions in other articles of food.

In Western Canada, so far as we can learn, the grains are generally productive, and the potatoes good in quality, though scant in quantity. The great deficiency is in the grass crops, which were burnt up by the summer heats. A good deal of rain has fallen within the last few weeks, but it is too late for the aftergrass, materially, to recover itself. This would have been a very favorable season for parsnips and carrots, but unfortunately, they are not grown to any extent. Turnips we have not many of, and they would have suffered from the drought of summer more than any other crop. Hay and straw must be very light, and we apprehend considerable difficulties will be experienced by the farmer in carrying his stock over to the next spring, unless the winter be unusually late in beginning, and early in ending. It is the general fault in this part of Canada, to keep far too short stocks of fodder. This produces what we may almost call a gambling system. When a certain price is offered to the farmer, he does not always act upon the rational principle of invariably providing for his own stock first, but calculates the chances, and often calculates them very ill, of what may be called betting against time. He runs down his fodder to the lowest practical limit, and if he falls within that, his stock perishes, or is sacrificed for the most miserable trifle; and that does not benefit the public, because it is not in a state fit for consumption, and is monopolised by a few persons who have means of carrying it over to another year. But, still, more often it is exposed in the market, in a state of leanness, in which it can only be eaten by persons as ill fed as itself.

In no market that ever we were in, is there such an enormous discrepancy between the prices of fat and lean meat, as there is here. This arises partly from the want of capital and foresight, but still more so, from the want of agricultural skill. There ought always to be on every farm, where stock is fattened, enough food to carry on the stock meant for the butcher, beyond all contingencies, and to leave an overplus one year to meet any possible deficiency for the next.

In one respect Lower Canada, for we cannot speak with such confidence of the Upper Province, is very unfavorably situated. Our winters are long; our season of labour short; and the range of our crops very much limited.

It seems now perfectly settled that the European harvest, so far from being deficient, is a very abundant one. Prices have descended with a very great rapidity; but, we would warn our readers against being misled.

The very extravagant speculations for a fall, in which many people now indulge, it is very possible, may be verified. It is possible that wheat may be twenty or thirty shillings lower than was lately, and every other grain in proportion; but we do not think that any rational calculations extend over a wide range.

Provincial Exhibition.

Prizes awarded by the Agricultural Association for Lower Canada, at the Provincial Agricultural and Industrial Exhibition at Quebec, in September, 1854.

CATTLE.

Short Horn or Durham.

Best aged Bull, B. Greene, Leeds.
2nd do Chas. Allen, do.
Best 2 years old Bull, Capt. Rhodes, Quebec.
Best 1 year old Bull, Mr. Scullion, do.
Best Cow, Capt. Rhodes, do.
Best 2 years old Heifer, Quebec Lunatic Asylum, Quebec.

The Judges regret to be obliged to state that the show in the class of which they have been called upon to judge is very poorly represented; there is great room for improvement in this valuable breed of cattle. Only two pedigrees were produced to the Judges, and those very deficient. The appearance of cattle does not warrant the assumption that they are pure.

Judges on Durham Cattle.—Messrs. E. W. Thomson, M. A. Deniston, J. Marks.

Ayrshire Cattle.

Best aged Bull, Montreal Agricultural Society.
2nd do John Oswald, St. Thérése.
Best 3 year old Bull, Hugh Campbell, Montreal.
2nd do J. Eglington, Quebec.
3rd do J. Oswald, St. Thérèse.
Best 2 years old Bull, Montreal Agricultural Society.
2nd do Thomas Gibb, St. Foy.
3rd do James Fisher, Rivière des Prairies.
Best 1 year old Bull, J. Dinning, Quebec.
2nd do Quebec Lunatic Asylum.
3rd do W. Anderson, Quebec.
4th do J. W. Dunscomb, do.
Best Cow, J. Gilmour, do.
2nd do J. Gibb, do.
3rd do Col. A. Gugy, do.
4th do Quebec Lunatic Asylum.
Best 3 years old Cow, H. Pemberton, St. Rochs.
Best 2 years old Heifer, J. Hughes, Montreal.
Best 1 year old Heifer, Thomas Gibb, Quebec.
2nd do J. W. Dunscomb, Quebec.
3rd do John Dods, Montreal.

Judges on Ayrshire Cattle.—Messrs. A. Anderson, C. Allen and J. Arkley.

Grade Cattle.

Best Cow, Capt. Serecold, Quebec.
3rd do M. D. Ross, St. Foy.
4th do M. J. West, Quebec.
5th do W. Scullion, do
6th do Col. A. Gugy, do
7th do M. J. Lee, do
Best 2 years old Heifer, John Dods, Montreal.
2nd do J. Gibb, Quebec.
3rd do Thomas Hamel, St. Foy.
4th do M. Scullion, do
5th do W. Welsh, Cap Rouge.
6th do R. Kempton, Stanstead.
7th do J. West, Quebec.

Judges on Grade Cattle.—Messrs R. W. Patton, A. Knoulton and D. Thomas.

Canadian Cattle.

Best 2 years old Bull, 2nd prize, M. Leon Belleau, St. Foy.
Best Cow, M. Hector Routier, Quebec.
2nd do M. Léon Routier, do
3rd do M. Scullion, do
5th do David Gilmour, do
6th do J. Finley, do
7th do P. A. Dorion, fils, do
Best 2 years old Heifer, Thomas Hamel, St. Foy.
2nd do do W. Welsh, Cap Rouge.
3rd do do Pierre Dorion, fils, Quebec.
Best 1 year old Heifer, J. B. Bédard, do
2nd do do J. Finley, Quebec.
3rd do do A. West, do
4th do do J. West, do
5th do do Capt Dorion, do

Judges on Canadian Cattle—Messrs. J. Lanouette, J. Laporte, and Edward Jones, Jun.

Fat Cattle.

Best Ox, Samuel Tozer, Little River, Quebec.
Best Cow, Thomas Hamel, St. Foy.

Judges—Col. Hanson, Messrs. Ronald, and W. Denison.

Working Oxen.

Best yoke Working Oxen, J. Bte. Bédard, Charlesboroug.

Judges—Messrs. H. W. Patton, D. Thomas, and A. Knoulton.

SHEEP.

Leicester or Longwool.

Best Ram, 2 shears, John Dods, Montreal.
2nd do do John Oswald, St. Thérèse.
3rd do do R. Rudd, St. Henri.
4th do do J. Gilmour, Quebec.
Best 1 shear Ram, John Dods, Montreal.
Best 3 aged Ewes, John Dods, Montreal.
2nd do do J. Gilmour, Quebec.
Best 1 shear Ewes, John Dods, Montreal.
2nd do do John Oswald, St. Thérèse.

Judges on Leicester Sheep—Messrs. A. Sommerville, G. Eglington, and Edward Lagueux.

Southdown or Short Wool.

Best Ram, 2 shears, J. W. Dunscomb, Quebec.
2nd do do Thomas Hamel, St. Foy.

Judges on South down Sheep—Messrs. A. Sommerville, G. Eglington, and Edward Lagueux.

Fat Sheep.

Best 3 fat Ewes, 2nd prize, M. J. Crighton, Godmanchester.

Judges on Fat Sheep—Messrs. Ranson, D. N. Davidson, and J. Renald.

Swine.

Best Boar, Quebec Lunatic Asylum.
2nd do, James West, Quebec.
Best Sow, Thomas Hamel, St. Foy.
2nd do, Charles Hughes, Three Rivers.
3rd do, M. Robitaille, Charlesbourg.
4th do, Quebec Lunatic Asylum.

Small Breed.

Best Boar, H. H. Moss, Quebec.
2nd do, J. West. do.
3rd do, Samuel Tozer, do.
Best Sow, Capt. Serecold, Quebec.
2nd do Thomas Hamel, St. Foy.
3rd do M. A. West, Quebec.
4th do Samuel Tozer, do.

Judges on Swine—Messrs. Q. Pomeroy, H. Campbell, and John Allen.

HORSES.

Draught Horses.

Best Stallion, Alex. Anderson, Godmanchester.
2nd do E. Quinn, Long Point.
3rd do J. Hughes, Montreal.
4th do A. Roy, St. Anselme.
Best Stallion Canadian Breed, George Alsopp, Quebec.
2nd do J. Hughes, Montreal.
3rd do G. Brousseau, Quebec.
4th do J. Gilmour, do
5th do Geo. Swinburn, Montreal.
Best 3 years old Stallion, John Dods, Montreal.
2nd do M. Wm. Cole, Montreal.
3rd do R. Mahappy, Sherbrooke.
Best 2 years old Stallion, Chas. Holsworth, Montreal.
3rd do Thomas Hamel, St. Foy.
Best Brood Mare and Foal, John Dods, Montreal.
3rd do Col. A. Gugy, Quebec.
4th do J. W. Dunscomb, do
5th do J. Bte. Bédard, Charlesboroug.
Best 3 years old Filly, P. Connolly, Quebec.
Best 2 years old do, John Dods, Montreal.
2nd do M. B. Greene, Quebec.
3rd do M. J. Plain, do
Best Span Draught Horses, W. Quinn, Quebec.
2nd do Capt. Dorion, Quebec.
Best Span Matched Carriage Horses, Thos. Gibb, Quebec.
2nd do J. H. Parke, Quebec.
4th do S. Anderson, do
Best Saddle Horse, James Gibb, do
2nd do J. H. Parke, do

Judges on Draught Horses, considered a horse belonging to Mr. Ross, which was too late for entry, was deserving of special notice.

Judges—Messrs. Jos. Whitman, T. Marcotte, S. H. Schuyler.

Blood Horses.

Best Thorough Bred Stallion, G. Swinburn, Montreal.
2nd do J. Plain, Quebec.
3rd do Col. A. Gugy, do
Thorough Brood Mare and Foal, 4th prize, certificate of merit, Col. A. Gugy, Quebec.

Judges on Blood Horses—Messrs. B. Pomeroy, Chas. Pennoyer and H. Burstall.

Dairy Produce.

Best Firkin of Butter 56lbs, Capt. Bouchard, Quebec.
2nd do J. Bte. Bédard, Charlesboroug.
3rd do Capt. Dorion, do
4th do Jean Plomondon, Ancient Lorette.
5th do T. Lloyd, Quebec.
6th do J. West, do
Best Cheese, 30lbs, James Allen, Pointe aux Trembles.
2nd do David Laurent, Varennes.
3rd do Esberd West, St Foy.

Sugar from Maple or Beet.

Best sample of Maple Sugar 14lbs, Jos. Jobin, Charlesboroug.

Judges on Dairy produce remark that No. 306, entered in the name of J. W. Dunscomb, Esq, though very good, being deficient of weight, is deprived of a premium.

Judges on Dairy Produce and on Sugar from Maple or Beet—Messrs. H. S. Anderson, Dr. McNaughton and A. E. Montmarquet.

Field productions.

Best 2 minots Spring Wheat, M. J. Brousseau, Quebec.
2nd do J. West, Beauport.
3rd do Wm. Taylor, Quebec.
Best 2 minots of Barley, John Oswald, St. Thérèse.
do Wm. Taylor, Quebec.
do J. West, Beauport.
2 minots Rye, Florent Turgeon, Que-
Etienne Plante, Quebec.
Oats, David Laurent, Va-
Taylor, Quebec.
t, do
West, do
do
do
gh Brown,
Thos.

Best minot Timothy Seed, Edouard Turgeon, St. Charles.
2nd do Felix Fournier, St. Charles.
3rd do Beloni Paré, St. Francois.
Best minot of Flax Seed, T. Turgeon, St. Charles.
2nd do Jos. Jobin, Charlebois.
3rd do J. Guillemette, St. Francois.
Best minot Potatoes, M. A. West, Quebec.
2nd do J. Wright, do
3rd do Wm. Taylor, do
Best minot Swedish Turnips, W. B. Greene, St. Francois.
2nd do J. Gilmour, Quebec.
3rd do W. Scullion, Quebec.
Best minot White Globe Turnips, James West, Quebec.
2nd do M. Scullion, Quebec.
Best minot Yellow Globe Aberdeen Turnips, B. Greene, St. Francois.
2nd do Hugh Brown, St. Joachim.
3rd do W. H. Moss, Quebec.
Best minot Orange Carrots, M. Scullion, Quebec.
2nd do Wm. Faris, Sorel.
3rd do J. West, Quebec.
Best minot White Belgium Carrots, J. Gilmour, Quebec.
2nd do Wm. Faris, Sorel.
Best minot of Mangel Wurtzel, (long-red)
2nd do J. Gilmour, Quebec.
3rd do Quebec Lunatic Asylum.
Best minot Yellow Globe Mangold Wurtzel, Quebec Lunatic Asylum.
2nd do Wm. Faris, Sorel.
Best minot Parnips, Quebec Luantic Asylum.
Best 4 large Squashes for Cattle, Capt. Serecold, Quebec.
Best 20 lbs Manufactured Tabacco, growth of Canada East, A. Gilillemette, St. Francois.
Best sample of Dressed Flax, 112 lbs, Jos. Jobin, Charlesbourg.

N.B.—1st prize on Mangold Wurtzel (long red) withheld for want of proper quantity exhibited.

Judges on field productions regret to say that the exhibition of articles under this department was very small. The Judges have much pleasure in saying that the arrangements, as far as the Committee of Arrangement go, were excellent. They remark that four lots of potatoes and three of oats shown by T. C. Sullivan too late for entry, are well worthy of prize.

Judges on Field Productions.—Messrs. W. R. Croil, E. A. Henderson, and W. Scott.

Agricultural Implements.

A Wooden Plough, a 3rd prize, Pierre Dorion, Charlebois.
Best Iron Plough, J. Jeffrey, Montreal
2nd do M. Scullion, Quebec.
3rd do J. Hamel, St. Foy.
Best pair of Harrows, J. Jeffrey, Montreal.
2nd do J. West, Quebec.
Best pair of Harrows, a 2nd prize, J. West, Quebec.
Best Cultivator, J. Jeffrey, Montreal.
Best Farming Mill, L. T. Chesley.
Best horse-power Thrasher and Separator, H. Moody, Terrebonne.
Best Root Slicer for Stock, J. Jeffrey, Montreal.
2nd do M. Moody, Terrebonne.
A Clover Machine, a 3rd prize, M. Moody, Terrebonne.
A Horse Cart, a 3rd prize, J. West, Quebec.
A Hay and Grain Cart, a 3rd prize, E. West, Quebec.
A Stump Extractor, 3rd prize, Raphail Giroux, St. Roch.
A Cheese Press, James West, St. Foy.

Judges on Agricultural Implements, see two Churns exhibited, no cards of entry thereon. They consider the double Dash Churn as entitled to a gratuity of 25s. and the Horizontal Churn exhibited by S. J. Shaw, entitled to a gratuity of 15s. The Judges considered a patent Augur exhibited by A. St. Jacques of St. Antoine, under Section 43 and No. 484, entitled to 20s. as a second prize. A Fruit Gatherer belonging to W. A. Hallowell, Esq. Quebec, as entitled to a gratuity of 10s. The Judges also observed a number of foreign implements exhibited by H. S. Scott, Esq., as a gratuity they would award him 10 dollars, if not inconsistent with the rules or regulations of the Exhibition. The Judges see a number of Horse-Shoes exhibited by Mr. W. Howard, they consider them entitled to the 1st prize under Sect. 44, £1 10s 0d, if not provided for by other Sections, as wrought not manufactured.

Judges on Implements. — Messr. H. Brown, John Sheales and G. Wakeham.

British Land Company's Prizes.

Best 12 minots Wheat, J. B. Lindsay, Quebec.
Best 10 minots Oats, David Laurent, Varennes.

Judges.—Messrs. W. Scott, E. Henderson and W. R. Croil.

Wm. Evans,
Sec'y.-Treas. Board of Agriculture.
Montreal, Sept. 27th, 1854.

Industrial Department.

PRIZE LIST.

Class I—Raw Materials.

Cap. I—Mineral Substances.

Judges—Messrs. LeComte de Rottermund, A. Kirkwood, and J. S. Sleeper.

Sections.

1. First Prize to St. Lawrence Mining Co, for collection of Geological Specimens, 2 10 0

2. First Prize to E. B. Lindsay of Quebec, for Anticosti Marbles, 2 0 0
3. First Prize to Q. Pomroy of Stanstead, for Marble and Soap Stone, 1 5 0
5. First Prize to ——Caron, of St. Anne, for collection of Mineral Pigments, 1 5 0
6. First Prize to John Allen, of Leeds, for Iron Ore, 1 5 0
" Second Prize to E. Simard, of St. Anne, for Mineral Pigments, 0 10 0
" Third Prize to Shipton Slate Company, for Slate, 0 5 0
" Discretionary Prize to Methot, Chinic & Co, for Plaster for building and manure, 1 0 0

*(N.B.—This collection contained specimens of Gold and Platina, which, although precluded by the regulations from receiving a separate Prize, are well worthy of honorable mention.)

Cap. II—Vegetable Substances.

Judges—Messrs. Wm. Drum &——

9. First Prize to P. Vallée, for Single Specimen of Pine Timber (Flag Staff,) 0 10 0

Cap. III—Animal Substances.

Judges—LeComte DeRottermund &——

23. First Prize to C. N. Têtu, of Rivière Ouelle, for Porpoise Leather, 0 10 0

CLASS II—MACHINERY, IMPLEMENTS, TOOLS, &c.

Cap. II-Labour-Saving Machinery, &c.

Judges—Messrs. Geo. Bissett & Wm. Eadon.

14. First Prize to C. Linley, of Montreal, for a Portable Forge,† 1 0 0
15. First Prize to do, do, for a Patent Smith's Bellows, 0 10 0
" Discretionary Prize to L. Lemoine, for a large do do, 0 5 0
16. First Prize to Robt. Sampson, Master Armourer, Ordnance Dept., Quebec, for a Turning Lathe of novel construction and of excellent workmanship, 1 0 0

† A very superior portable Forge and Furnace were also exhibited by Mr. Shaw, of St. John street, Quebec; but being of American manufacture it could not be entered for competition.

Cap. III—Edge Tools, &c.

Judges—Messrs. H. S. Scott & Wm. Eadon.

27. Second Prize to Jos. Moisan, of St. Henri, for a collection of Axes, 0 15 0

CLASS III—VARIOUS INDUSTRIAL PRODUCTS AND MANUFACTURES.

Cap. I—Chemically or otherwise Prepared Substances.

Judges—LeComte DeRottermund & Mr. Jos. Bowles.

1. First Prize to C. H. Têtu, of Rivière Ouelle, Porpoise and other Oils, 1 0 0
2. First Prize to Théophile Hamel of St. Rochs, Quebec, for Champagne Vinegar, 0 10 0
" Second Prize to Methot, Simard & Co, of Quebec, Raw Linseed Oil, 0 5 0
3. First Prize to Mrs. Campeau, of St. Gervais, for Hard Soap, 0 5 0
" Discretionary Prize to Jean Roy, of St. Gervais, for Hard Soap, (certificate of merit.)
6. First Prize to do, for Potato Starch, 0 5 0

Cap. II—Engineering, Architectural & Building Contrivances, &c.

Judges—LeComte DeRottermund & Mr. A. Kirkwood.

For Naval Architecture.

Judges—Messrs. John Jameson & Jas. Jeffery.

8. First Prize to Wm. Antrobus Holwell, of Quebec, for System of Warming and Ventilation, 2 10 0
9. First Prize to do, do, for Warming Apparatus, 1 5 0
10. First Prize to T. C. Lee, of Quebec, for Model of Sea-going Steamer, 1 5 0
11. First Prize to do, do, for do of River Steamer, 1 5 0
12. First Prize to do, do, for Merchant Sailing Vessel,‡ 1 5 0
13. Discretionary Prize to Master W. Shaw, of Quebec, (14 years old), for a full rigged Schooner, 0 5 0
18. Fifth Prize to Simon Bédard, of Quebec, for an Original Weather-cock, 0 5 0
25. First Prize to M. Murray, of Quebec, for Cast-iron Railing, 1 0 0
28. First Prize to Ramsay and McArthur, of Montreal, for Stained and enamelled Glass,§ 1 0 0
29. First Prize ts the Ottawa Glass Company, for excellent Window Glass, 1 0 0
34. Second Prize to Mr. Chas. Shepherd, of St. Ours, for Building Bricks, 0 10 0

‡(N.B.—The 2nd and 3rd prizes in this section were also awarded by the Judges to models by the same exhibitor; as well as the 1st, 2nd and 3rd prizes of section 13 for models "of Naval Architecture of any description": but the regulations do not admit of such awards being confirmed.)

§(Several other very beautiful specimens of glass staining were exhibited by the same manufacturers, though no second prize could be awarded to them.)

Cap. III—Machines (or Models thereof) for direct use.

Judges— Capt. Serecold (66th regt.) and Mr. George Bissett.

40. First Prize to Clovis Leduc, of Montreal, for 4-wheeled Carriage, for 2 horses, 1 10 0
" Second to Edouard Gingras, of Quebec, for do, do, do, 1 0 0
41. First Prize to Clovis Leduc, of Montreal, for 4-wheeled Carriage, one horse, 1 5 0

Cap. IV—Manufactures in Metal and General Hardware.

Judges—H. S. Scott and Wm. Eadon.

51. Second Prize to Jean Gosselin, of St. Gervais, for a Triple Box Stove, 0 10 0
55. First Prize to St. Maurice Iron Foundry, for Iron Bedsteads (2), 1 0 0
56. Second Prize to M. Murray, of Quebec, for a cast-iron Swing Cot, 0 10 0
58. First Prize to Michel Huot, of Quebec, for Patent Axles, 1 5 0
" Second Prize to W. Howard, of Quebec, for Horse-shoes, 0 10 0
" Discretionary Prize to Louis Lemoine, of Quebec, for a large polished Anvil, 0 10 0
63. First Prize to Methot, Chinic & Co., of Quebec, for Cut-Nails, 0 10 0

The following articles, excluded from competition as not being of Canadian manufacture, are favorably noticed by the Judges :—

A Cooking Stove and various other articles of American manufacture exhibited by Mr. J. Shaw, of St. John street, Quebec.

A Card Printing Press of excellent construction and superior finish, American manufacture, exhibited by Messrs. Brousseau, Quebec.

Several interesting specimens of Submarine Telegraph Wire of English manufacture, exhibited by Mr. Wm. Eadon, Quebec.

Cap. VIII—Manufactures in Wood, &c.

Judges—Messrs. S Derbishire & Wm Black.

82. First Prize to Thos. Craig, of Quebec, for drawing-room Furniture (black walnut), 2 10 0

2nd do, J Ashworth, Quebec, 0 16 0
3rd do, Jas Gibb, do, 0 5 0

Best Trio of White Shanghaes.

No competition—Diploma—J Ashworth, Quebec.

Best Trio Black Shanghaes.

1st Prize, J Ashworth, Quebec, 1 5 0
2nd do, Jas Gibb, do, 0 10 0

Best Trio Black Spanish.

1st Prize, J Gilmour, Quebec, 1 5 0
2nd do, H Pemberton, jr, do, 0 10 0

Best Trio Dorkings.

1st Prize, J W Dunscomb, Quebec, 1 5 0

Best Trio Golden Polands.

1st Prize, J A Panet, Quebec, 0 15 0

Best Trio Black Polands.

No Competition—Diploma—H Hartney.

Best Trio Seabright Bantams.

3rd Prize, J Gilmour, Quebec—Diploma.

Best Pair Muscovy Ducks.

1st Prize, Major Temple, Quebec, 0 10 0
2nd do, H N Patton, do 0 5 0
3rd do, H Gowen, jr, certificate of merit.

Best Pair Common Ducks.

1st Prize, Capt Rhodes, Quebec, 0 5 0
2nd do, Mr Crawford, do, 0 2 6

Best pair Bremen Geese.

No competition, Capt Rhodes, Diploma,

Best pair Guinea Fouls.

1st Prize, H N Patton, Quebec, 0 5 0
2nd do, H Benjamin, do certificate of merit,

Best Parrot.

2nd Prize, Mr Casey, Quebec, diploma.

DESCRETIONARY PRIZES.

Shanghae Chickens.

Diploma, Mr Coit.

Silken Bantams.

Diploma, Mr Crawford, Quebec.
Do J Gilmour, do

Topknot Ducks.

Diploma, Mr Crawford, Quebec.

Fantail Pigeons.

Diploma, J Bte Amand.

SINGING BIRDS.

Best Collection of Canaries.

1st Prize, J Hill, Quebec, 0 5 0
2nd do, J Bedard, 0 2 6
3rd do, J Bte Amand, do, certificate of merit.

Best Blackbird.

Diploma, Major Temple, Quebec.

Skylark.

Diploma, Major Temple, Quebec.

Goldfinch.

Diploma, Mr Meredith.

Parroquet.

Diploma, Mr Meredith.

AGRICULTURAL ASSOCIATION OF LOWER CANADA.

QUEBEC, *Friday, Sept.* 15, 1854.

Pursuant to advertisement in both the English and French newspapers, the Agricultural Association of Lower Canada, assembled at the Committee Room of the Board of Agriculture, upon the Exhibition Grounds, at 10 o'clock, A. M.

Gentlemen present:—Major Campbell, President of the Board of Agriculture, James Gibb, Esq., President of the Agricultural Association, John Dods, James Thompson, R. N. Watts, John Yule, Esqrs. Captain Rhodes, M. P. P., J. S. Sanborn, Esq., M.P.P., W. L. Felton, Esq., M.P.P., J. E. DesBlois, Adams Sommes, and Edward Quinn, Esqrs.

Mr. Gibb, President of the Association, was called to the Chair.

Major Campbell, President of the Board of Agriculture, stated the object of the meeting to be the election of President and Vice-President of the Association for the ensuing year, and to fix the place for holding the Provincial Exhibition for the next year.

Moved by Mr. Thomson, seconded by Mr. Felton, and passed unanimously, that John Yule, Esq., of Chambly, be appointed President of the Agricultural Association for the ensuing year.

Moved by Mr. Watts, seconded by Mr. Sanborn, that Benjamin Pomroy, Esq., of Compton, be Vice-President—passed unanimously.

Moved by Mr. Thomson, seconded by Captain Rhodes, and passed unanimously, That the town of Sherbrooke be the place for holding the Provincial Exhibition for the ensuing year—Provided the Agricultural Societies of the Counties of Sherbrooke and Stanstead merge their funds for the ensuing year, to the general support of the Provincial Exhibition.

Proposed by Major Campbell, seconded by E. Quin, Esq., and Resolved unanimously, that the days of Exhibition be Wednesday the 14th, Thursday the 15th, and Friday the 16th of September, 1855.

The meeting then separated.

BOARD OF AGRICULTURE.

QUEBEC, *Sept.* 15, 1854.

At 12 o'clock, on this day, the Board of Agriculture met at the Committee Room, upon the Exhibition Ground.

Gentlemen present:—Major Campbell, President, J. Gibb, R. N. Watts, E. J. DesBlois, James Thomson, and John Dods, Esqrs.

Major Campbell in the chair.

The meeting proceeded to adjudicate on several protests, submitted against adjudications of Premiums, made at the Exhibition, and decided on the same:

Referring to the several protests, the Secretary was instructed to address letters to each of the applicants, signifying to them the decision of the Board in each particular case.

Resolved, that the Premiums awarded on Blood Horses, and Durham Cattle, shall be withheld until the pedigrees required by the Third General Regulation have been produced, and found satisfactory.

Resolved, that the thanks of the Board of Agriculture be tendered to the President and the Local Committee, and especially to the Secretary, for their zealous co-operation in carrying out the details of the business connected with local arrangements.

Resolved, that the thanks of the Association be tendered to the gentlemen who have acted as Judges at the Exhibition.

The meeting was then closed.

By order,

WM. EVANS,
Sec'y.-Treas., Board of Agriculture.

Quebec, Sept. 16th, 1854.

MONTREAL AGRICULTURAL SOCIETY.

On the 7th September, the annual exhibition of this society was held in Montreal. The day was a lovely one, and the attendance of visitors numerous, including most of our leading agriculturists. The show of cattle was highly creditable to the county, though the horses were not so numerous as was expected, nor was there sufficient competition in dairy products, such as butter and cheese. When the show was over, the members and their friends sat down to an excellent and substantial dinner at Irish's hotel. The secretary, Mr. Smith, has kindly handed us the following list of premiums with the names of the successful competitors; as well as the report of the farm inspectors upon their annual visitation. The list of prizes for crops was given in the last number of the *Farmer's Journal*.

General Competition.

Prizes.	£	s.	d.
1st Draught Stallion, Ed. Quinn, Long Point,	5	0	0
2nd do William Cole, Petite Cote,	4	0	0
3rd do Pierre Groulx, St. Laurent,	3	0	0
4th do Bazile Groulx, St. Laurent,	2	0	0
1st Saddle Stallion, George Swinburn, Montreal City,	3	0	0
No other competitors.			
1st Brood Mare, Edward Glendenning, Petite Cote,	3	0	0
2nd do James Logan, Petite Cote,	2	10	0
3rd do Jas. Somerville, Lachine,	2	0	0
4th do Alex. Ogilvie, Petite Cote,	1	10	0
1st 2 years Horse Colt, Chas. Holdsworth, Petite Cote,	2	0	0
2nd do Jas. Logan, Petite Cote,	1	10	0
3rd do Charles Valois, Lachine,	1	0	0
1st 2 years Filly, John Dods, Petite Cote,	2	0	0

2nd do Jas. Somerville, Lachine, ... 1 10 0
3rd do J. Drummond, Petite Cote, ... 1 0 0
1st aged Bull, Hugh Campbell, Petite Cote, . . 2 10 0
2nd do John Drummond, Petite Cote, ... 2 0 0
3rd do James Somerville, Lachine, . . . 1 10 0
4th do Joseph Laporte, Pointe aux Tremble, . . 1 5 0
5th do Francois Groulx, St. Laurent, . . . 1 0 0
No other competitors.
1st 2 year Bull, Jas. Fisher, Riviere des Prairie, . . 2 0 0
2nd do Archibald Ogilvie, Riviere St. Pierre, . . 1 10 0
3rd do James Logan, Petite Cote, ... 1 0 0
4th do Daniel Hadley, Riviere St. Pierre, . . . 0 10 0
1st 1 year Bull, Edward Glendenning Petite Cote, . . 1 10 0
2nd do Dan'l Drummond, Petite Cote, . . . 1 0 0
3rd do Alex. Ogilvie, Petite Cote, ... 0 10 0
4th do Quinten Muir, St. Laurent, ... 0 5 0
1st aged Rams, James Somerville, Lachine, . . 2 0 0
2nd do Jas. Hutchins, St. Laurent, . . . 1 10 0
3rd do William Boa, St. Laurent, ... 1 5 0
4th do J. B. Groulx, St. Laurent, ... 1 0 0
5th do Joseph Laporte, Pointe aux Trembles, . . 0 15 0
1st shearing Ram, Edward Glendenning, Petite Cote, . 1 10 0
2nd do J. Deroches, St. Laurent, ... 1 5 0
3rd do B. Groulx (fils), St. Laurent, ... 1 0 0
4th do William Boa, St. Laurent, ... 0 15 0
5th do L. Deloriers, Pointe Claire, . . . 0 10 0
No other competitors.
1st aged Boar, J. Laporte, Pointe aux Trembles, . . 2 0 0
2nd do James Logan, Petite Cote, ... 1 10 0
3rd do J. Teese, Parish of Montreal, . . . 1 5 0
4th do Thos. Mountain, Montreal City, . . . 1 0 0
5th do Michael Durand, Long Pointe, . . . 0 15 0
No other competitors.
1st Boar under 6 months, Hugh Campbell, Petite Cote, . 1 5 0
2nd do Peter Fisher, Long Pointe, . . . 1 0 0
3rd do Joseph Laporte, Pointe aux Trembles, . . 0 15 0
No other competitors.
1st Canadian Cloth, R. Boa, St. Laurent, . . . 1 10 0
2nd do Casimer Tenant, Pointe aux Trembles, . . 1 0 0
3rd do J. Dagenais, Ponte Claire, . . . 0 10 0
1st Flannel, Wm. Flannel, St. Laurent, . . . 1 10 0
2nd do A. Langlois, Pointe aux Trembles, . . . 1 0 0
3rd do Francois Groulx, St. Laurent, . . . 0 10 0
1st Linen, Jos. Deroches, Pointe aux Trembles, . . 1 10 0
2nd do Leon Desloriers, Pointe Claire, ... 1 0 0
3rd do J. Bt. Groulx, St. Laurent, ... 0 10 0

English Class.

1st Cows, James Logan, Petite Cote, ... 2 10 0
2nd do Archd. Ogilvie, Riviere St. Pierre, . . . 2 0 0
3rd do William Dow, Cote St. Paul, ... 1 10 0
4th do Peter Ring, St. Laurent, ... 1 0 0
1st 2 year Heifers, James Logan, Petite Cote, . . 2 0 0
2nd do J. Somerville, Lachine, 1 10 0
3rd do Archd. Ogilvie, Riviere St. Pierre, . . . 1 0 0
1st 1 year Heifers, William Dow, Cote St. Paul, . . 1 10 0
2nd do James Logan, Petite Cote, ... 1 0 0
3rd do Alexander Ogilvie, St. Michel, . . . 0 10 0
1st aged Ewes, James Somerville, Lachine, . . . 2 0 0
2nd do James Muir, St. Laurent, ... 1 10 0
3rd do Edward Quinn, Long Point, ... 1 0 0
1st shearing Ewes, James Somerville, Lachine, . . 1 10 0
No other competitors.
1st Sow, with litter of Pigs, Hugh Campbell, Petite Cote, . 2 0 0
2nd do Thos. Mountain, Montreal City, . . . 1 10 0
3rd do Jas. Hughes, Petite Cote, ... 1 0 0
1st Couple of Pigs, under 6 months, J. Stenson, Petite Cote, ... 1 10 0
2nd do P. Fisher, Long Pointe, 1 0 0
1st Cheese, Jas. Allan, Pointe aux Trembles, . . 2 0 0
2nd do Jno. Drummond, Petite Cote, ... 1 10 0
3rd do D'l. Drummond, Petite Cote, ... 1 0 0
3rd Butter, D'l. Drummond, Petite Cote, ... 1 0 0
4th do Edward Glendinning, 0 10 0

Competed for by French Canadians.

1st Cows, Paschal Gagnon, Petite Cote, ... 2 10 0
2nd do Andre St. Denis, Lachine, ... 2 0 0
3rd do Joseph Lanouette, Riviere St. Pierre, . . 1 10 0
4th do Frs. Xr. Bro, Riviere St. Pierre, . . . 1 0 0
1st 2 year Heifers, Andre St. Denis, Lachine, . . 2 0 0
2nd do J. B. St. Aubain, St. Laurent, . . . 1 10 0
3rd do Joseph Laporte, Pointe aux Trembles, . . 1 0 0
1st 1 year Heifer, And. St. Denis, Lachine, . . . 1 10 0
2nd do J. B. St. Aubain, St. Laurent, . . . 1 0 0
3rd do Jos. Laporte, Pointe aux Trembles, . . 0 10 0
1st aged Ewes, Andre Langlois, Pointe aux Trembles, . 2 0 0
2nd do Frs. Xr. Bro. Riviere St. Pierre, . . . 1 10 0
3rd do Leon Deslorier, Pointe Claire, ... 1 0 0
1st shearing Ewes, Leon Laporte, Pointe aux Trembles, . 1 10 0
No other competitors.
1st Sow, with litter of Pigs, Joseph Laporte, Pointe aux Trembles, ... 2 0 0
No other competitors.
1st Couple of Pigs, under 6 months, L. Laporte, Pointe aux Trembles, . . . 1 10 0
2nd do J. Laporte, Pointe aux Trembles, . . . 1 0 0
Cheese, no competition.
1st Butter, Frs. Churriture, Pointe aux Trembles, . . 2 0 0
2nd do Leon Laporte, Pointe aux Trembles, . . 1 10 0
3rd do Joseph Laporte, Pointe aux Trembles, . . 1 0 0
4th do Jos. Desroches, Pointe aux Trembles, . . 0 10 0

Mr. James Smith, Secretary Treasurer to the County of Montreal Agricultural Society.

Sir,—In concluding our tour of inspection as judges on crops for the society for the current year, and in compliance with your desire we send you a brief account of our observations.

To begin, we regret to inform you that through the whole course of our inspection we found the crops very light, much below an average crop; the cause, a hot, dry season. We visited several fine fields of bald wheat, and particularly admired the wheat fields of James Somerville, of Lachine, Robert Brodie, of Coteau Ste. Pierre, Walter Brunny, of Coteau St. Pierre, and Thomas Smith of Pointe Claire. The Black Sea wheat is in general very light, and struck with the rust, and in some districts

also damaged with the fly. Grass-hoppers have made sad havoc among the crops also.

Mr. J. B. Lecour, a Canadian, residing at St. Laurent, deserves especial mention. His farm is divided so as to undergo a complete rotation, and his management and method of culture is the same as adopted by the most successful of old country farmers.

We are happy to say that an improved system of culture is perceptible throughout the country we visited. Very many neat, clean and well-managed farms cut for models of neatness and good management, we must make particular mention of those of William Dow, John Drummond, James Logan and William Boa. The clear and rich appearance also of the potatoe fields of James Hughes, James Somerville, Robert Brodie and Michael Hyand were worthy of honorable mention.

Before concluding our remarks it is but right to inform you that we think that the society might with propriety continue to offer premiums for summer fallow, the experience of the present season should convince us all of the utility of it.

JAMES BUCHANAN,
FRANCIS HADLEY.

The usual annual exhibition of the Terrebonne County Agricultural Society took place at St. Thérèse, on the 7th September. The weather was very fine, and a large concourse of people were assembled. The show of cattle and farming produce fully exceeded that of any former year. The following is a list of the awards:—

WELL MANAGED FARMS.

French Canadian Class.—1. Felix Lavoie; 2. Charles Therrien; 3. Frs. Dubois; 4. L. Bélair; 5. G. Legris.

British Canadian Class.—1. W. Miller; 2. R. Candlish; 3. J. Oswald.

Wheat.—1. A. Kimpton; 2. W. Miller; 3. C. Therrien; 4. G. Legris; 5. F. Lavoie.

Barley.—1. J. Oswald; 2. D. Limoges; 3. Dr. Lachaine; 4. F. Dubois; 5. R. Goldie.

Oats.—1. W. Miller; 2. P. Bastien; 3. J. Oswald; 4. A. Kimpton; 5. J. O. A. Turgeon.

Pease.—1. A. Kimpton; 2. W. Miller; 3. J. Lanagan; 4. L. Bélair; 5. T. Lanagan.

Rye.—1. Octave Ouimet; 2. P. E. Marier; 3. Frs. Forget.

Flax.—1. J. A. Charbonneau; 2. G. Gravel; 3. J. R. Delorier; 4. O. A. Desjardins; 5. Joseph Ouimet.

Indian Corn.—1. Léon Bélair; 2. W. Woodwark; 3. W. Miller.

Potatoes.—1. R. Candlish; 2. J. Morris; 3. W. Miller; 4. A. Kimpton; 5. Mrs. Hettrick.

New Meadows.—1. J. Candlish; 2. A. Kimpton; 3. W. Woods; 4. J. Lanagan; 5. L. Bélair.

Carrots.—1. A. Kimpton; 2. J. Morris; 3. J. Oswald.

Turnips.—1. A. Kimpton; 2. J. Oswald.

Mangel Wurtzel.—1. A. Kimpton; 2. Dr. Lachaine; 3. J. Oswald.

HORSES.

Aged Studs.—1. Ant. Payment; 2. J. Morris; 3. G. Blondan; 4. J. B. Deloria, père.

Mares with Foal.—1. A. Kimpton; 2. J. Morris; 3. P. E. Marier; 4. A. Chartrand; 5. O. Ouimet.

Colts under 4 years.—1. N. Lobelu; 2. J. Grattan; 3. N. Bélanger; 4. F. Desjardins; 5. A. Desjardins.

Colts under 3 years.—1. W. Holte; 2. P. E. Marier; 3. J. Orr.

HORNED CATTLE.—CANADIAN CLASS.

Aged Bulls.—1. A. Leclaire; 2. E Ethier; 3. O. Leclaire; 4. G. Legris; 5. J. O. A. Turgeon.

Bulls under 3 years.—1. C. Therrien; 2. P. Ouimet; 3. T. Limoges; 4. M. Bastien; 5. J. B. Deloiria, fils.

Bulls under 2 years.—1. Rev. J. Duquet; 2. P. E. Marier; 3. L. Leclaire; 4. J. Vesina.

Cows.—1. F. Desjardins; 4. G. Legris; 3. A. Leclaire; 4. P. E. Marier; 5. O. Leclaire.

Heifers under 3 years.—1. J. B. Deloria; 2. L. Leclaire; 3 J. O. A. Turgeon; 4. A. Payment; 5. G. Legris.

Hefeirs under 2 years.—1. J. O. A. Turgeon; 2. J. Vesina; 3. O. Ouimet; 4. L. Leclaire.

BRITISH CLASS.

Aged Bulls.—1. J. Oswald; 2. A. Kimpton; 3. T. Lanagan; 4. Mrs. Hettrick; 5. T. Lanagan.

Bulls under 3 years.—1. Rev. J. Duquet; 2. R. Candlish; 3. O. Leclaire; 4. F. Kimpton.

Bulls under 2 years.—1. W. Miller; 2. J. Lanagan; 3. T. Lanagan; 4. W. Chalmers; 5. J. Orr.

Cows.—1. A. Kimpton; 2. J. Lanagan; 3. J. Oswald; 4. R. Candlish; 5. Mrs. Hettrick.

Heifers under 3 years.—1. F. Kimpton; 2. J. Oswald; 3. A. Kimpton, 4 J. Lanagan; 5. J. Morris.

Heifers under 2 years.—1. A. Kimpton; 2. J. Lanagan; 3. P. E. Marier; 4. W. Chalmers; 5. R. Candlish.

SHEEP.—CANADIAN CLASS.

Aged Rams.—1. F. Desjardins; 2. G. Blondeau; 3. P. E. Marier; 4. L. Mathieu. 5. J. B. Deloria.

Young Rams.—1. O. Ouimet; 2. L. Mathieu; 3. D. Lobelu; 4. M. Holte; 5. F. X. Limoges.

Aged Ewes.—1. C. Therrien; 2. L. Mathieu; 3. G. Blondeau; 4. D. Lobelu; 5. J. Gravel.

Young Ewes.—1. J. Gravel; 2. P. Ouimet.

BRITISH CLASS.

Aged Rams.—1. J. Oswald; 2. R. Marshall; 3. J. Taylor; 4. R. Woodwark; 5. J. Morris.

Young Rams.—1. W. Miller; 2. F. Kimpton; 3. J. Oswald; 4. O. A. Desjardin; 5. J. Oswold.

Aged Ewes.—1. J. Oswald; 2. R. Woodwark; 3. J. Lanagan; 4. J. Morris; 5. F. Kimpton.

Young Ewes.—1. J. Oswald; 2. F. Kimpton; 3. A. Kimpton; 4. J. Lanagan; 5. W. Miller.

SWINE.

Aged Boars.—1. Rev. J. Duquet; 2. T. Lanagan; 3. A. Kimpton.

Young Boars.—1. F. Dubois; 2. J. Taylor.

Sows.—1. Rev. J. Duquet; 2. T. Lanagan, 3. C. Therrien; 4. J. Lanagan; 5. A. Hortie.

BUTTER.—CANADIAN CLASS.

1. E. Rochon; 2. S. Ouimet; 3. A. Payment; 4 O. Ouimet; 5. A. Brazeau.

Chees.—1. J. Filiatrault; 2. J. Hardy.

BUTTER.—BRITISH CLASS.

1. Filiatrault; 2. A. Kimpton; 3. J. Hardy; 4. T. Lanagan; 5. W. Miller.

Cheese.—1. W. Miller; 2. Mrs. Hettrick; 3. R. Candlish.

DOMESTIC MANUFACTURES.

Etoffe.—1. L. Lapointe; 2. J. Despatis; 3. ; 4. J. Hardy; 5. O. Leclair.

Flannel.—1. A. Leclair; 2. S. Ouimet; 3. E. Filion; 4. F. Desjardins; 5. A. Payment.

Linen.—1. J. Despatis; 2. ; 3. L. Lapointe; 4. J. Hardie; 5. O. Leclaire.

Maple Sugar.—1. J. Forget; 2. J. Limoges; 3. J. Hardie; 4. A. Leclaire. 5. O. Leclaire.

Several prizes were also distributed for fancy work and horticultural productions.

AGRICULTURAL EDUCATION OF FRANCE.

Notwithstanding that energy, enterprise and go-aheadiveness are usually claimed and conceded as characteristics of the people of the United States, we sometimes think that even in these qualities they are excelled, in some departments, by the inhabitants of other countries. In England and Scotland private enterprise is doing considerable in the matter of establishing agricultural schools, of various grades; and in France there are now in operation three schools of the highest grade and about fifty of a lower grade under a combination of private and governmental patronage. In Germany also there are of agricultural schools not a few. As the

greater zeal of our brethren in these countries for the 'interest of agriculture,' may serve to provoke our latent energy into life and activity; and as the methods employed in these schools may furnish hints to such individuals as may establish agricultural schools on their own responsability and resources, or to such as may be officially charged by a State with the conduct of such a school, we shall give, from time to time, some items of information in regard to the success of these schools, the methods of instruction adopted, and whatever else may promise to be of interest or utility here.

One of the Regional schools—as those of the highest grade are called—in France is located at Grignon, about 20 miles from Paris. At this, the period of education extends to three years of 48 weeks each. During the year there are lectures daily by five professors, and at the end of each fortnight an examination of pupils by an assistant to each professor. The time for study is from 6 to 11 A. M., and from 7 to 9 P. M. The remainder of the time is devoted to the inspection of the fields and for attending to the cattle. Attached to the school is a farm of 1162 acres. There are about 100 students usually in attendance.—*Country Gentleman.*

PRESERVATION OF MANURE.

Several articles have been published in this paper during the current year in relation to the preservation of manure from the wasting effects of winds and rain and sun by means of some kind of covering or shelter. The N. B. Agriculturist has been lately urging the importance of the same mode of management. Among other reasons why farmers should bestow more care than they usually do upon the production and preservation of all substances capable of being employed as manures, some especial stress is laid upon the fact that more than usual difficulties are now being felt in obtaining guanos and other portable manures in sufficient quantities, and at reasonable rates, and, we may add, in a condition sufficiently free from the possibility and probability of being fraudulently deteriorated or adulterated. As regards the *production* of manures, every vegetable or animal product is calculated to swell the manure heap. Animal products are, from their containing a larger percentage of nitrogen more valuable than vegetable products. Hence, while no vegetable matter should be allowed to run to waste, all animal matter connected with the farm, and all that can be cheaply obtained, should be carefully collected and added to the manure heap. Carcases of animals that die, blood, slaughter-house cleanings, refuse of fisheries, and anything of like nature should be added as there may be opportunity. Where such animal matters can be obtained, some dry peaty matter from ditches, or sawdust or sand or clay, should be mixed up with it to absorb the liquid, and also to retain the ammonia which exhales from it.

But neglect in the *preservation* of farm-yard manure is more common or at least more palpable than neglect in collecting substances to form a large manure heap. The yards are generally so arranged as to permit, not only rain, but also the drippings from the roofs of adjacent buildings, to fall upon the manure and wash out of it much that is valuable. Who so very fortunate as not to have seen, either in his own barn-yard or in those of his neighbors, brown streams issuing forth, carrying with them the gold of the farmer, only in a way somewhat different from the usual form. Where this cannot be prevented by making the barn-yard concave, or deepening it in the centre, it may be done by laying down dry peat earth or dry mould to absorb it. It should never be forgotten, says N. B. Agriculturist, that the urine of animals is the most valuable part of their excrete, and where not absorbed by the litter, should, in some way, be prevented from escape and waste.

But fertilizing matter escapes in other ways than in the liquid form. "Loss also accrues from the escape of matter in a gaseous form." Ammonia or hartshorn, which is now generally known as one of the most valuable, as well as one of the most volatile of elements entering into the composition of fertilizing matters, readily passes from the exposed manure in the farm-yard. "When fermentation rises to a certain height, this escape is constant. To keep fermentation in check and to fix the ammonia for retention should be the study of the farmer. Here dry peat becomes a valuable auxiliary, and also dry mould. Some have advocated the adding of gypsum; it is, however, found in practice not to answer the expectations which were at one time formed of it. No better subtance has yet been recommended," says the N. B. Agriculturist, "than dry peat or dry mould. Sawdust, where it can be obtained in sufficient quantities, makes an excellent additional covering for the manure heap. As a rule, all farm-yard manure should be applied to, and mixed with the soil as speedily as possible; but during summer, at least, this becomes all but impracticable." Under such circumstances there must be loss and waste, a leaking away of what might be converted into golden treasure, if the manure does not get some kind of covering, and be mixed with some matters which will absorb the liquids and the exhalations.—*Country Gentleman.*

RUSSIAN FLAX AND HEMP.

The great moderation with which the restrictions of war have as yet been applied to those commercial relations which affect not only the interests of Russia, but of all other countries habitually trading with her, may have had the effect of mitigating the pressure of war upon the mercantile interests of the enemy; but henceforth the severity of the blockade will be felt more keenly, and its effects will probably not be confined to the period of its application. The stoppage of our intercourse with Russia will turn into other channels the capital and enterprise which have so long contributed to enrich her. Many of her chief exports—such as hemp, flax, and tallow—can be obtained from India or South America, and we have no doubt that, if the war should continue, we shall draw from our own possessions abroad, or from other countries, all that Russia has hiterto supplied us with. In Hungary, for example, the cultivation of hemp and flax may be carried on with advantage to an unlimited extent. In causing the trade of Russia with this country to be diverted from its ancients channels and destroyed, the Emperor Nicholas is inflicting a greater hardship on his people than he, perhaps, imagines, for it will extend beyond the war which has given rise to these obstructions, and will impoverish his subjects even more than the sacrifices they are now called upon to make to satisfy the demands of absolute power and military ambition.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.—ARTIFICAL MANURES.

The following is an extract of a recent interesting debate in this society:—

Recently some very spirited efforts have been made by Mr. Pettit to manufacture an artificial guano from the refuse, or neglected fish, which abound on some of the shores of the United Kingdom. This seems a research in a very hopeful direction; it is certainly endeavouring to follow in the same field as those very sea-birds who manufactured the Peruvian guano for us; their food being almost entirely fish—their excreta, constituted of the remains of fish, formed those guano beds, in a rainless climate, from whence our mariners are shipping the guano of Peru. The process of Mr. Pettit was stated, at a recent discussion by the members of the Royal Dublin Society, to consist chiefly in treating refuse fishy matter with sulphuric acid, by which a pulp is produced, that needs only drying to form a manure, 100 parts of which, when analysed by Professor Way, gave the following general results:—

Moisture.....	4.93
Organic matter	88.36
Sand, &c.....	1.35
Earthy phosphates.....	4.06
Alkaline salts.....	1.30
	100.00
Ammonia.....	16.78

Here, then, we have a manure closely resembling guano in the amount of its nitrogenous substances: its cost must then be the next consideration, and here I fear, the great difficulty will occur. It is true that fish are, on some of the shores of our islands,

to be obtained, at certain seasons, at a very low rate; but then we must remember that in fish we have to deal with an article which is of an exceedingly watery nature; even the muscle of animals has been shown by Berzelius to contain more than 77 per cent. of water; it would not therefore, probably be far from the truth if we estimate that to produce a ton of guano (as by Mr. Petit's plan), about nine or ten tons of fish would be required. The Essex farmers, who use fish as a manure pretty extensively, deem a dressing of 50 or 60 bushels of sprats to be a fair dressing for oats, and that these produce a powerful effect, especially in moist seasons, equal to a dressing of 3 or 4 cwt. per acre of guano; allowing a bushel of fish to weigh 56lbs., this would be equal to a dressing of 1½ tons per acre; and allowing nine-tenths of this o be water, we have an application of about 3 cwt. of sold animal matter per acre.

It remains, then, to be seen, if refuse fish can be obtained in sufficient quantities to enable our chemical friends to prdouce a supply of the British guano.

ECONOMY OF MANURES.

From the Mark Lane Express.

Last Christmas we showed how large area might be covered in, and the internal arrangements made portable and moveable, so as to be easily adapted to the changing fashions of farming practice, whether the loose box, the shed, or the stall-feeding system were adopted; and that almost any change might be made, if a four-squared piece of sloping ground were fenced in. With all our knowledge, the liquid manure is the real difficulty of the farmer; he knows not yet what to do with it. To save it, and cart it away, is manifestly a costly mode of disposing of it; to make compost heaps near it is very costly, and terribly expensive of horse and human labour. Few can irrigate with it; nor will those, who can, be at the expense of making the pipes and hose necessary to spread the water-refuse. Box-feeding will preserve a little; but the open yards, the manure cleansed out of the pigsties, the stables, and the various out-offices of the farm, will be found exposed in most places for a very long period to the effects of the atmosphere.

We must not, however, forget locality. In some places hardly too much rain falls; in others almost all the soluble parts of the manure are regularly washed out. Still water is far easier let out upon the manure if it run any risk of being too dry, than to stop an overflow of liquid if it exists in excess.

AGRICULTURAL NOTES.

Lincolnshire Farming.

The meeting of the Royal Agricultural Society of Lincoln led to a challenge, by some men of Norfolk, to show, half a dozen of farms in that county against the same number on the Heath and wolds of Lincoln. It is to be hoped that the challenge will not end in mere talk; because, although wagers could do little towards deciding on the respective merits of the two counties, the report of the judges—which would, or should, be a detailed report—would show the modes of farming in the two first counties of England. In an agricultural point of view, Lincoln and Norfolk are in a totally different position. Norfolk was one of the earliest counties in England in which the important agricultural improvements, which we owe to the Dutch and Flemings were introduced. From Flanders the turnip—on the cultivation of which all good farming rests—first found its way into Norfolk. Norfolk differs from Lincolnshire, too, in being more amply supplied with labourers; and in having had, before the era of railroads, a manufacturing market close at hand.

The name best known in connection with the agriculture of Norfolk is that of Coke, of Holkham, afterwards Earl of Leicester, who, during a long life, devoted himself with energy and success to the improvement of a naturally poor soil by good farming and good stock, and long leases. He was one of the great landed proprietors who, following in the footsteps of Lord Somerville, and availing themselves of the experience and example of Francis Duke of Bedford, set the fashion of agricultural-minded landlords—a fashion which has been of such enormous advantage to the country, by spreading through its length and breadth the stock brought to so high a degree of perfection, by Bakewell in Sheep, and by the Collingses in Short-horns. The sheep-shearing of Woburn, and afterwards of Holkham, became famous wherever agricultural improvement was appreciated. At the present time Norfolk has several improving landowners, and some farmers of the first class, whose names have an European celebrity.

Coke, of Holkham—for that is his agricultural name—left his mark on Norfolk more in the shape of improved live stock than in improved processes of tillage. He introduced the Devon, superseding an inferior local breed; and he did good service by assisting to render fashionable the new Leicester sheep, by which all the improvements in our Long-wools have been effected. But, although Norfolk may, perhaps, boast one of the first, and certainly the largest cultivated farm in the world, the county has had to struggle against the disadvantage of traditions which the improvements of the age have put out of date. For instance, the turnip sown broadcast was a wonderful step in advance, as a root crop, a hundred years ago, when grown by Lord Somerville; but the turnip sowed broadcast, as it may still be seen in Norfolk and at the famous farm of Tiptree, is terribly bad farming.

Lincolnshire has not had to contend against old customs and a prejudiced tenantry. The districts which attract most attention have been colonised and reclaimed within the last eighty years. The labouring population of the Heath and wolds has always been in number rather under than over the demand, and the supply of tenant-farmers has depended to a considerable extent on migration from the other counties. Now it is a well-ascertained fact that in agriculture, as in manufactures, improvements are carried on more vigorously by emigrants unshackled by ancient prejudices.

In 1770 Arthur Young made his first agricultural tour through Lincolnshire; and at that period, with the exception of a few favoured spots in the vicinity of ancient Church domains, the sea-bordered lowlands were a succession of lakes, where, in winter, the ague-smitten inhabitants carried on their decoys, and, in summer, with the help of stilts and boats, gathered crops of rich rank hay; while on the high ground, the heaths, and wolds—gorse covered—gave sustenance to a few miserable sheep. The lowlands first benefited from the great drainage works, which were vigorously pushed early in the present century. Since that period, the introduction of the steam-engine has dried hundreds of thousand of acres, and substituted heavy crops of cole or rape and corn for uncertain catches of pike, eels, and wild duck. The hissing of the steam-engine has driven away

The bittern booming in the marsh,

and substituted the partridge and corn-crake.

On the wolds—a back-bone of sloping hills of light land that run through the country from north to south—a transformation into thriving farms has been effected by "turnips grown with bones, fed off with sheep:" the farmers finding courage to spend the money needful for reclamation, under the shelter of a tenant-right custom, established by the great landlords of the country, with the Yarborough family at their head.

In 1790, when, as Secretary to the Board of Agriculture, Arthur Young made his second tour of inspection, he found that more than 150,000 acres had been reclaimed by embankments and levelled cuts. The first drainage improvements were effected by taking advantage of the natural fall of the ground to get rid of superfluous water. Windmills, for pumping from a low to a high level, were introduced by, and copied from, the Dutch; but, useful as they were, it not unfrequently happened that the rain fell in summer, and that the wind failed in autumn, just when most needed, and the corn, fit for cutting, required reapers in boats, or, if cut, floated away here and there with the floods. The steam-engine has done much toward protecting the fen farmer from these uncertainties. Near Boston, Algarkirk, Kirton, Billingborough, and Hackenby, there are wide tracts of grazing land, formerly covered with water, which carry a bullock or three sheep to an acre. To drain the lowlands of Lincolnshire, artificial out-

falls have been constructed, upwards of 400 miles in extent, at a cost of little less than one million and a half sterling. At the Pode-hole Drain, near Spalding, in September and October, 1848, two engines of 80 and 60 horse-power consumed 500 tons of coal in pumping from 25,000 acres of land.

It is on these lowlands that the warping process is carried on, by which the alluvial soil held in solution in the Trent and Ouse is, by successive floodings and drainings, made to settle on poor land, until a "warp soil" of great depth has been obtained. On this warp soil, crop after crop, even of the most exhausting kinds, may be grown without manure. Those interested in the history of the reclamation of the Fens will find a very good account in a little work recently published by Mr. Clarke, of Wisbeach. But it is on the heaths and wolds which, within the lives of the fathers of this generation, have been changed from wild gorse to first-class turnip farms, that the agricultural reputation of Lincolnshire chiefly rests.

On Arthur Young's second visit to Lincolnshire the improvements were so great that he thought little remained to do, and he then observed, that, "forty years previously, it was all warren from Spilsby beyond Caistor. At that time there was scarcely a turnip to be seen where thousands of acres now flourish; and the few grown were unhoed, except by gentlemen." At that period Mr. Chaplin, of Temple Bruer, let 3000 to 4000 acres at 2s. an acre, chiefly as rabbit warrens. At present one may ride with foxhounds from Lincoln to Barton on-the-Humber, and scarcely see such a thing as a rabbit warren. As for this Temple Bruer estate, Mr. Pusey, in his celebrated tour in 1842, found it converted into a first-rate farm, with a tenant occupying 1000 acres, where, with 125 acres of turnips, he wintered from 1200 to 1500 sheep, and fed in fold-yards 110 beasts, for which he purchased eighty-five tons of oil-cake. And he observes, "In passing over Lincoln heath, condemned by intelligent Arthur Young to barrenness, farm succeeded farm, each appearing to be cultivated by the owner, for example, and not as really the case by a tenant for profit; and so for miles through fields of turnips, without a blank or weed, on which thousands of long-woolled sheep were feeding in netted folds; every stubble-field clean and bright, all the hedges kept low and neatly trimmed, every farm-house well built with spacious courts, and surrounded by such rows of saddle-backed ricks that showed that the land did not forget to return in August what it had received from the fold in December."

Now, the question raised in 1854, in friendly chat among the farmers of many counties, was not as to the correctness of this often-quoted passage at the time it was written, but whether the Lincolnshire farmers have continued to go ahead, and keep up the distinguished position they held twelve years ago. We think they have. We believe, that with few fancy farmers—such as those who are to be found amusing themselves by experiments made regardless of expense—the general average of tenant-farming is higher in Lincolnshire than in any other county; that more good stock is well housed and fed during the winter; that better implements are used; and that improvements of any kind are more readily introduced into the tenant-farms of Lincolnshire than any other county, although there is no one man who stands in so preeminent a position as Mr. Hudson, of Castle-acre, in Norfolk.

After Lincoln-heath come the Wolds, which were left to rabbits when Lincoln-heath, with a near market, grew barley and oats, although not wheat. Lincoln-heath now grows six quarters of barley where, 1799, it only grew three; and four or five quarters of wheat where it was thought the land was too poor to grow any. While, as to the intermediate belt between the sea and the Wolds, Mr. Sidney, in his "Ride through North Lincolnshire, in 1848," says —"The neatness of the general cultivation was as remarkable as the great size of the farm-buildings. The gates, always a sign of good farming, were universally in good order, the fields square, and the corners evenly worked up, the drill system for wheat-sowing all but universal, and the crops consequently well harrowed and clean. On most of the farms the best modern implements were in use; that most useful implement the 'scarifier' was as common as the harrow; Crosskill's clod-crusher passed everywhere; and the wheelwrights' shops had quite a scientific appearance from the number of patent tools there for repair. Every farmer feeds some good beasts, which are to be found with plenty of straw under their feet, not wandering over liquid mud of ill-paved yards."

On a recent visit to the same district, we found no signs of contented agricultural conservatism. Draining had been vigorously pushed in the clay lands in the autumn, and fixed and portable steam-engines were spreading everywhere. On a farm of 1300 acres, of which half was in tillage, the tenant —farming with an agreement for compensation for unexhausted improvements—had laid out nearly £3 an acre for the first two years, on guano, bones, and other tillages, and was then spending upwards of 30s. an acre in the same way. This farm carried 1000 sheep, 100 fat beasts, wheat to pay the rent, beside some breeding stock. This was not a fancy, but a tenant's farm.

The Wold farms on the Brocklesby estate are, on an average, above 300 acres, having been laid out in the rough by the grandfather and father of the present Earl. Many fields are from 40 to 70 acres; and on one of these we saw magnificent crops of turnips, sown with the liquid manure drill, as a medium for distributing super-phosphate. Now, this new implement was introduced on the Wolds, not by a fancy advertising farmer, but by one who has farmed the same farm more than thirty years, under the Yarborough family, and made turnips succeed gorse, and driven out rabbits with improved Lincoln sheep. It has been remarked by a leading journal that the Lincoln sheep are inferior to the Cotswold. There is no doubt of the fact. The breeders have not, until lately, been under the influence of comparison and competition. The Lincoln Royal Agricultural Show will no doubt have its effect. But fifteen years of repeated trials have shown that the fine qualities of the Cotswold cannot be transplanted. They appear to depend on something peculiar to the Cotswold-hills, and to the style of feeding adopted by a few successful breeders.

There are, unquestionably, three points in which Lincolnshire takes a high agricultural position. The customs and traditions of the county make the landlords what is commonly called liberal, but what is in reality wise. They provide the machinery in fit farm-buildings, and secure the expenditure of the tenant by compensation for unexhausted improvements. The tenants are enterprising, and are not afraid of new implements or new tillages. The labourers are well paid and well fed. The single men and boys live with the foreman. Here is a bill of fare of a Lincolnshire farmer, for the benefit of the "Sheep's-head and Pluck" counties:—"Breakfast—Bread, milk, and bacon. Dinner—Beef or mutton, or bacon, alternately, with vegetables, bread, and cheese. Supper —Bread and cheese. A pint of beer daily." On the Brocklesby estates, it has been Lord Yarborough's endeavour that every labourer should have enough land to keep a cow.

It is safe to assert that, with room for improvement— where is there not!— the three classes of landlords, tenants, and labourers, are better placed, and live in better mutual relation, on the heaths and wolds colonised within the last sixty years; and that the practice of agriculture is, on an average, more steadily progressing than in any other county. The great want is, an intelligent, practically-useful education for the peasantry.—*The Illustrated London News.*

Flax in the West.—The American Agriculturist states that large fields in Southern Ohio are devoted to the raising of flax for seed. For want of proper machinery, the stalks are thrown away. One to two bushels of seed are sown per acre, which gives 12 to 14 bushels of seed, more than if a larger quantity were sown, but less lint where the latter is an object. The cultivation consists simply of one ploughing, a harrowing, then sowing and brushing in the seed. The crop is mowed or cradled. The oil mills pay $1.25 to $1.50 per bushel for the seed.

THE PROVINCIAL EXHIBITION AT QUEBEC.

(From the Quebec Mercury.)

Yesterday at one o'clock, the entrance to the Grand Provincial Exhibition was thrown open, The day being as beautiful as the most earnest supporter of the undertaking could have desired, and everything propitious, crowds of citizens were densely thronging from all directions to view the fair.

Usually on such occasions there is a great deal of unnecessary and disagreeable formality adopted by those entrusted to receive the tickets, but this department, thanks to Captain Rhodes, M.PP., was conducted in a manner calculated to please all and prevent disagreeable crowding at the entry.

The site is without doubt the very best in the vicinity of Quebec that could have been selected for so large a show. Spacious and level, at a pleasant distance from town, and commanding as it does one of the finest views on the St. Lawrence, it offers all those advantages and attractions, which a place designed for such a display, should possess. The managers have not, that we could see, omitted anything calculated to make the fair pass off with eclat, and the arrangements generally reflect honor on those who designed and are carrying them out.

The first exclamation that escapes one on entering is "which way shall we go," for on all sides, and in all corners crowds are seen pushing eagerly about, desirous that nothing may escape their observation. Yesterday the splendid band of Her Majesty's 71st regiment was on the ground, and ever and anon discoursed sweet music to the excited hundreds. The fountains which have been erected in the immense square are very beautiful, and they play occasionally to the delight of those who never before have had the opportunity of witnessing jets of such magnitude. We have not space nor time in this number to particularize each article or each collection of articles, but we may mention that the collection of cattle and fowls are well worthy of the attention of the most uninterested spectator. The vegetables and fruit for beauty and size, we have never seen surpassed.

The cursory glance which we have been able to bestow upon the varied marvels contained within the Building, inclines us to the belief that the anticipations we have entertained of the result will be realised, and that the Exhibition will receive a measure of recognition and support seldom equalled in this part of the country. We will endeavour to give a brief *catalogue raismné* of the most striking and interesting objects.

The building is acknowledged by visitors from all parts of the United States and Canada to be the best arranged structure of the kind ever seen. It extends over twenty-four acres of ground, and cannot but meet with the admiration of all who view it. The sheds composing the building form three sides of a square, the entrance to which is from St. Lewis Road.

On entering the grounds and turning to the left, after passing the offices of the Committees, &c., we came to the first department of the fine arts; on surveying this section we perceived that though there were several contributions of oil and water color paintings, engravings, &c., of merit, there were no specimens of the highest order of artistic genius—sculpture. Embroidery, crochet, and ladies' fancy work, occupied nearly the whole of the centre table in this department.

Miscellaneous articles too numerous to describe in our limits, occupied the spare room.

We were much struck by a splendid set of Furs from the well known establishment of J. Henderson & Co., of this city. For beauty and comfort they cannot be excelled anywhere.

The division of woollen manufacture shows examples from the coarsest productions of *etoffe du pays*, up to the finest example which the present state of the trade in Lower Canada permits it to produce.

Under manufactures we saw Saddlery of the best description from Montreal, and Mr. Auld's warehouse, Fabrique Street, which is worthy of notice.

Mr. Clovis Leduc of Montreal has brought down a very splendid barouche and wagon, and Mr. Gingras, Ursule Street, exhibits several well finished carriages. Leduc's carriages both took 1st prizes: they are highly ornamented with ivory and silver, mounted on improved single eliptic springs, and are valued at £75 and £125.

Mr. Craig, St. Paul Street, exhibits a set of gorgeous Drawing Room furniture in black walnut (native wood) also a centre and two side tables, with marble tops, the marble cut out of the solid block and finished in Quebec. Mr. Drum exhibited some magnificiently finished chairs.

In the department of manufacture we may mention the carriages and Chinese furniture, and among the fine arts, the daguerreotype likenesses of Mr. Smith, of St. John street, attract universal attention and admiration.

The show of iron ware was very scant, there was a small show of stoves; an improved axletree by M. Huot, St. John Suburbs; specimens of horse-shoes by Mr. Howard, blacksmith, St. John Street, and a sample of nails from Messrs. Chinic, Simard & Co's Factory.

Mr. Moodie, of Montreal, and Mr. H. S. Scott, were the principal exhibitors of agricultural implements. The models of Agricultural utensils were innumerable.

Mr. Eadon exhibits 10 specimens of Submarine Telegraph wire cable.

A variety of the Porpoise leather which obtained a prize at the World's Fair in 1851, was shewn by Mr. Tetu.

The visitors must not fail to look at the beautiful Stained Glass windows from Messrs Ramsay and McArthurs, Montreal, painted by Spence. The subjects are "The Burial of Christ," "The Virgin and Child," the Arms of Great Britain, and a Mediæval design.

The Ottawa Glass Company has contributed its usual show of window and plate glass.

The class of naval architecture includes models of vessels, and plans, &c., of the same. The models are exceedingly numerous, and the display is calculated to prove that Quebec is decidedly "going ahead" in ship building. A yacht schooner built by a young aspirant for nautical fame commands much admiration.

Every variety of articles of Cooperage and Turned Ware are shewn. A turning lathe, the invention of a workman in the Ordnance Department, draws especial attention.

Though the specimens of Minerals are not numerous, they are very select, and the iron and copper ores are of superior quality. The St. Lawrence Mining Company display specimens of Gold in great variety. Anticosti marble, Stanstead granite, and Shipton slate, are good samples of Lower Canada building materials.

The Singing Bird Show, in the east wing, was not so large as we expected; there were, however, many choice birds on view.

The display of Poultry surpassed our most sanguine expectations, and 150 coops were filled with specimens. Here Mr. J. W. Platt, of New York, and Mr. Peacock, of Montreal, were exhibitors on a large scale. The display of Cattle is decidedly the best part of the Exhibition, and the sheds which are erected on the most approved principles occupy a space of 800 feet.

Notwithstanding appearance of rain, the attendance this afternoon was immense, being over 8,000 persons. The fine band of 26th was present this afternoon, and that of the St. Jean Baptist Society in the forenoon.

The trial of Engines occupied the whole day. The winning Engine of the first class was, we believe the Voltigeur Company's "*Canadienne*," built by Lemoine.

His Excellency the Governor General and suite arrived on the grounds soon after 2 o'clock, and were received with all the honours.

In the centre of the square is a fountain, to supply which, water has been brought from Lake St. Charles. A Reservoir has also been erected to supply the Fire Engines on the occasion of the "Great Trial," to-day. Tents in which flowers, fruit and garden productions are exhibited; confectionary and refreshments are sold; and "the skeleton brothers," and numerous phenomema shewn, fill up the area.

The menagerie belong to Mr. Guilbault, of Montreal, is on exhibition opposite the grounds, and immediately alongside," Mr. Bibin, a well made French giant, has taken up his temporory abode, and willingly receives visits from any who have curiosity

enough to see one of their own species nearly eight feet in height.

Any one who could see the crowds returning, and the hearty satisfaction depicted on their countenances, their tongues the while glibly chattering in plain testimony of the enjoyment they had experienced, and the interest the scene excited, would not lose the opportunity of witnessing our Provincial Exhibition.

THE PRICE OF GRAIN.

(From the N. Y. Evening Post.)

The news brought by the steamer St. Louis, from Europe, announces a liberal harvest of grain and lower prices, with a sluggish market. The effect of these tidings will naturally be to produce a decline in the prices of breadstuffs here. When we connect this cause with several other circumstances which we are about to state, the decline, whenever it arrives, will in all probability be very considerable.

A state of things now exists which is favorable to a general decline of prices. Speculation has been checked, losses have been suffered by the fall of stocks and the abandonment of enterprises which a little time since seemed full of promise; incomes have been diminished; employment is not easily found.

The harvests of Europe, it seems, are large, and so we think our own will prove to be. Our wheat crop is certainly much larger than it was last year. In the western states, particularly in the northern part of them, it is estimated that never were so many acres sown with wheat, and never were such abundant harvests gathered in. The high prices of the year 1853 had their natural effect of stimulating production; the farmer who raised the most wheat in that year was the most prosperous; he was encouraged to try the same crop another year, and his neighbors followed his example. In the southern states, as we mentioned the other day, the cultivation of wheat has been much more general this season than usual; fields which last year were covered with the cotton plant have this year yielded wheat of the best quality produced in the United States. This wheat is not yet sent to market, on account of the yellow fever in the southern ports; but we know that it is ready for exportation, and the effect of such a supply in prospect will sooner or later have its effect on the grain market.

Meantime California, which took so largely from us last year, takes no more. The prices in the market of San Francisco give no encouragement to the importation of wheat, and the grain trade there is as effectually cut off as if an embargo had been laid on the port.

The deficiency of the crop of maize has been by many thought likely to have the effect of keeping up the price of grain generally. It begins now to be generally admitted that this deficiency is exaggerated. The drought by which Indian corn has suffered has, it is true, been remarkably general throughout the country, but it requires a season of extreme dryness to do it essential injury, and in many places it has not been severe enough to affect the crop to any very great degree. In the northern part of some of the western states the maize crop is large, and even here in our own neighbourhood there are districts in which the drought was either not felt early enough, or was sufficiently mitigated by occassional showers to allow the ears of Indian corn to fill to the average extent. When we consider that, owing to the high price of this grain, more land was planted with it than usual last spring, we shall be led to believe that no such deficiency in the crop as is now probable will be able to prevent the expected decline in the prices of breadstuffs.

BUREAU OF AGRICULTURE,

Quebec, 22d Sept., 1854.

Patents of Invention.

His Excellency the Governor General has been pleased to grant Letters Patent of Invention for a period of fourteen years, from the date thereof, to the following persons, viz:

Michael Egan, of the Town of Niagara, in the County of Lincoln, Brass Founder, for "A new and improved mode of making and preparing moulds for Copper, Brass and Composition Castings." (Dated August 26, 1854.)

John H. Gatiss, of the Township of Barton, in the County of Wentworth, Mineralogist, for "A new and useful improvement in the apparatus for cleaning and scouring Wheat, Rye and Buckwheat." (Dated 28th August, 1854.)

Joel Babcock Hayden, of the Town of Brantford, in the County of Brant, Gentleman, for "An improved Hub, for waggon and carriage wheels." (Dated 4th September, 1854.)

William Nixon, of the Township of Grimsby, in the County of Lincoln, Yeoman, for "A Potatoe and Seed Drill." (Dated 4th September, 1854."

CLOTTED CREAM.

Fillingham says, "I think I can supply your readers with a far more simple and practicable mode of making Devonshire, or clotted cream, than that mentioned in the Cottage Gardener. Keep the milk in block tin pans, which are far more cleanly and sweet than earthenware or wood. Place yesterday's milk over the top of a kitchen boiler, removing the iron opening; when the pan sounds dead by striking it with your finger take it off, and skim the cream the next morning. The heat will naturally force all the rich and creamy qualities of the milk to the surface."

MONTREAL MARKET PRICES.

Rates at which produce is purchased from the Farmers.

Hay per 100 bundles, 10 to $12½.
Straw do 6 to $7½.
Beef, per 100 lbs, from 4 to $7.
Pork, do from 7 to $9.
Mutton, per carcase, from 3 to $7.
Veal, do from 3 to $7.
Wheat, none coming to market.
Barley, per bushel, from 3s 9d to 4s.
Oats, do from 2s 3d to 2s 6d.
Peas, from 4s 6d to 4s 7½d.
Salt Butter, per lb, 10½d.
Fresh Butter, do from 1s 3d to 1s 6d.

IMPORTANT TO FARMERS.

PLOUGHING MATCH

THE ANNUAL PLOUGHING MATCH, under the direction of the COUNTY of MONTREAL AGRICULTURAL SOCIETY, will take place on the FARM of Mrs. JAMES MILLS, Coteau St. Pierre, Upper Lachine Road, 4 miles from the City, on THURSDAY, the TWENTY-SIXTH day of OCTOBER, instant,—when apart from the Premiums to be awarded from the funds of the Society, a Purse of FORTY DOLLARS will be given, to be competed for by Ploughmen residing in the Province of Canada: provided more than one Ploughman residing out of the limits of the County of Montreal, shall compete for such prize, but not otherwise. If more than one Ploughman residing out of the limits of the County shall enter as competitors, and that a county Ploughman be awarded the Purse, such successful Ploughman will also be entitled to the first Prize in his own class.

The Premiums to be awarded from the funds of the Society will be published forthwith after the first monthly meeting.

The Ploughs to be on the ground at Nine o'clock in the morning.

JAMES SMITH,
Secy. County of Montreal Agricultural Society.
Montreal, 1st October, 1854.

SUPERIOR FRUIT TREES.

A CHOICE ASSORTMENT of the various kinds best adapted to this climate, for sale at GEO. McKERRACHER'S, Partenais Street, Quebec Suburbs, and of the Undersigned, at Summer Hill, (late J. McGregor's,) Guy Street, Cote des Neiges Road.

JOHN AULD.
Montreal, 2nd October, 1854.

FOR SALE.

A full blooded SOUTHDOWN RAM—and an AYRSHIRE BULL, both imported last year. Further information may be had upon application to Mr. DUNSCOMB, President of the Quebec Agricultural Society.

Quebec, 21st Sept. 1854.

N.B.—Prizes were taken by both animals at the late Provincial Exhibition. 1 P

NOTICE.

THE MEGANTIC AGRICULTURAL SOCIETY, No. 2, will hold their FALL SHOW on the 11th day of OCTOBER, on the Farm of R. LAYFIELD, in the Township of INVERNESS.

A. McKILLOP,
1 *Sec'y.-Treas.*

Important to Agriculturists!

VALUABLE
PURE BRED STOCK.

AT the residence of JOHN DODS, Esq, Petite Coté, on THURSDAY, the 5th October next, will be sold by Auction, offering a rare opportunity to intending purchasers:

8 Superior Milch Cows, in Calf by the Imported Ayrshire Bull.
1 Two-Year-Old Ayrshire Bull [took Prize as a Yearling at the Provincial Exhibition, 1853.]
2 One-Year Old Ayrshire Heifers.
1 Bull Calf [Ayrshire.]
Pure Leicester Sheep [Best ever offered in this Country.]
1 Aged Ram [Imported, got by "Champion" the First Prize Leicester Ram at the Royal Exhibition held at Exeter in '50.]
25 Shearling Rams [Pure Leicester Breed.]

—AND—

1 Litter Berkshire Pigs.

—ALSO—

Will be offered:

The well-known imported draught horse Clyde, 8 years old.
One 3 year old entire Colt, got by Clyde, [took the first prize at the last District Exhibition.]

☞Sale at ELEVEN o'clock, A. M. precisely.☜

BENNING & BARSALOU,
Auctioneers

PAPER, STATIONERY, &c.
WHOLESALE.

THE Subscriber has now received his FALL SUPPLIES of WRITING, WRAPPING, and DRAWING PAPERS of all kinds, ACCOUNT BOOKS, MISCELLANEOUS STATIONERY including Wax, Wafers, Steel Pens, Quills, Slates, Slate Pencils, Colors, Drawing Pencils, Knives, Ink, &c., &c.

— ALSO —

The TEXT BOOKS used in the principal Colleges and Schools in the Province.

— AND —

Ample Supplies of the NATIONAL SERIES of School Books from new Stereotype Plates, on clear paper, and printed page for page with other editions.

HEW RAMSAY.

LATELY PUBLISHED.

A History of Rome for the use of Schools, 2s.
History of Canada for do, new edition, 2s.
Histoire du Canada—a French edition of the same, 2s. 6d.
Ramsay's Quarter Dollar Atlas (10 Maps colored).
Do. Scripture Atlas (6 Mapes colored), 4d.
Map of Canada, colored, showing the Lines of Railway, 3s. 9d.

IN THE PRESS.

A Geography of Canada for the use of Schools.
A History of England for do.

HEW RAMSAY.

ENCYCLOPÆDIA BRITTANICA.

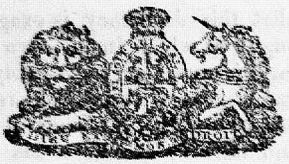
A NEW Edition of this magnificent Work is now in course of publication. The Subscriber has just received from Edinburgh the Four First Vols., in large quarto, abundantly illustrated with Steel Engravings. Price 25s. per volume.

HEW RAMSAY.

SCHOOL REQUISITES.

PAPER, SLATES, SLATE PENCILS, MAPS, ATLASSES, GLOBES, &c., in great variety, for Sale, (Wholesale,) on the most reasonable terms, by

H. RAMSAY.



NOTICE

IS hereby given to the Censitaires in the Seigniories of Lauzon, Sillery, Notre-Dame des Anges, St.-Gabriel, Belair, Batiscan, Cap de la Magdeleine and Laprairie and to those in the Fiefs and Arrière-Fiefs, belonging to Her Majesty, situate in the City of Quebec, the Town of Three-Rivers and their Banlieues, or in any other part of Lower Canada, that His Excellency the Administrator of the Government, desiring to facilitate the change of tenure in these Seigniories and Fiefs, has directed, by and with the advise of His Council, that any purchaser, who within one month from the date of his purchase, shall make application and commute the tenure of the property acquired, in conformity to the Provincial Statute, 10 & 11 Vict. Ch. 111, will obtain a remission of the Lods and Ventes due upon his purchase, provided he pays cash the indemnity fixed by law, or at least twenty-five pounds, if the property is situated within the City and Banlieue of Quebec; and twelve pounds ten shillings, if out of these localities, when such indemnity exceeds these respective sums.

A. N. MORIN,
Commissioner of Crown Lands.

Crown Lands Office, Quebec, 29th May, 1854. — 6m — 1 July

NOTICE.

MR. WILLIAM BROWN, of the Firm of COCKBURN & BROWN, Nurserymen, Seedsmen, and Florists, Montreal, being about to make a prolonged visit to Europe, offers his services to Agricultural Societies, Farmers and others, for the purchase and shipment of Seed, Grain, Implements, Stock, &c. Terms and particulars can be obtained, by addressing Messrs. Cockburn & Brown, at 40, *Great St. James Street*; or orders (in all cases accompanied by a Bill of Exchange, for the probable amount of the purchase), may be sent direct to Mr. Wm. Brown, 1, Cumberland Street, Glasgow, Scotland.

Montreal, 15th August, 1854. 3 m

1854.

COUNTY OF MONTREAL AGRICULTURAL SOCIETY.

THE Subscribers to the funds of the Society generally, are notified, that TWO THOROUGH BRED AYRSHIRE BULLS have been imported, one is kept at the Stables of John Dods, Esq., at Petite Cote, in the Parish of Montreal;—the other, at the Stables of James Powley Dawes, Esq., at Lachine in the Parish of Lachine; each Member of the Society for the current year, has the right of the gratuitous use of his choice of either Bull for one Cow, but must pay a fee of 2s 9d for every other Cow sent.

Members are requested to send their tickets of Membership, and money with every second or other Cow, if more than one be sent, as all payments must be made strictly in advance, otherwise no service will be rendered. By order,

JAMES SMITH, *Sec.*

Montreal, 1st July, 1854.

PRINTING AND BOOKBINDING.

THE undersigned executes with neatness and despatch, and at moderate prices, all kinds of PRINTING, such as, BOOKS, CATALOGUES, PRIZE LISTS, CARDS for CATTLE SHOWS, &c. —ALSO— BOOKBINDING, either Printed Books, or Merchants Ledgers, Journals, &c.

H. RAMSAY.

RECENTLY PUBLISHED.

COMPLETE in two volumes Royal 8vo., The FARMER'S GUIDE to SCIENTIFIC and PRACTICAL AGRICULTURE. Alias the new and only correct edition of "STEPHENS'S BOOK of the FARM." By Henry Stephens, F.R.S., of Edinburgh. With an American Appendix, by J. P. Norton, Professor of Scientific Agriculture in Yale College, New Haven.

LETTER FROM MR. STEPHENS.

"REDBRAE COTTAGE, EDINBURGH, Sept. 30, 1851.

"MESSRS. LEONARD SCOTT & CO.,

"Gentlemen—I beg to say that your '*Farmer's Guide*' is the only genuine edition published in the United States of America of my work the '*Book of the Farm.*' The edition circulating at present in the States under the title of the 'Book of the Farm' is taken from the first edition of my work, written ten years ago, which, in my second edition, I entirely remodelled, and in great part rewrote, adopting all the more recent improvements in the practice of agriculture suggested by scientific experiment, and making it, in effect, quite a new book.

"I am, Sirs, your obedient Servant,
"HENRY STEPHENS.

"This work embraces every subject of importance connected with Agriculture in all its various branches, both theoretical and practical. Its clear and copious details, the fulness and accuracy of its formation, the completeness of every illustration, have, in an agricultural work on practice, never been equalled." It is arranged under four separate heads, represented by the four seasons of the year—Winter, Spring, Summer, and Autumn—and the notes of Professor Norton are appended in the same order, adding greatly to the value of the work by adapting it to the soil, climate, growth, &c., of this country. The united labors of two such distinguished writers constitute this the most complete and valuable agricultural work ever issued from the press. It comprises two large royal 8vo. volumes, and contains 1600 pages, besides 14 splendid steel engravings, and about 600 engravings on wood. The latter illustrates almost every implement of husbandry now in use: the various methods of plowing, planting, &c., &c.; and the former the domestic animals, the farmsteading, &c. The work is elegantly printed on thick white paper, from the English stereotype plates, and neatly bound in emblematic gilt muslin, price $6; in leather, $6 50; in paper covers, $5.

LEONARD SCOTT & CO.,
Publishers.
No. 54 Gold St., Cor. of Fulton St., New York.
And for Sale by
H. RAMSAY, *Montreal.*
Farmer's Journal Office.

NOTICE TO FARMERS.

THE MUTUAL FIRE INSURANCE COMPANY of the COUNTY OF MONTREAL, insures the properties of farmers, in Lower Canada, at 5s. for £100 currency, for 3 years, &c.

Apply at the office, *St. Sacrament Street*, Montreal; to the Agents in the Country; or to the undersigned Directors:—

Wm. Macdonald, Esq.,	President,	Lachine.
B. H. LeMoine,	"	Montreal.
Edward Quin,	"	Longue Pointe.
F. M. Valois,	"	Pointe Claire.
John Dods,	"	Petite Cote.
G. G. Gaucher,	"	Ste. Genevieve.
Frs. Quenneville,	"	St. Laurent.
Joseph Laporte,	"	Pointe-aux-Trembles.

P. L. LE TOURNEUX,
Secretary and Treasurer.

Montreal, 1st July, 1854.

PRINTING IN BOTH LANGUAGES

FOR AGRICULTURAL SOCIETIES, furnished with the greatest expedition and on the most moderate terms.

H. RAMSAY.

Farmer's Journal Office.

Montreal: Printed and Published by H. Ramsay, No. 21, St. François Xavier Street.

The Farmer's Journal,

AND

TRANSACTIONS

OF

THE LOWER CANADA BOARD OF AGRICULTURE.

VOL. III, No. 9, MONTREAL, JANUARY, 1855. POSTAGE FREE. PRICE 2s 6D. PER ANNUM, IN ADVANCE.

The Farmer's Journal.

We beg to call the attention of our readers to the able and satisfactory statement which appears in another column, respecting the mode of cultivation pursued by Mr. James Logan on his farm. This was furnished to the Montreal County Agricultural Society, and kindly sent to us for publication. This description of information is what we are most anxious to publish, and we call upon our friends throughout the Province to contribute similar articles to our columns.

——:o:——

The Paris Exposition is now admitted upon all hands to have been a great success. Its inauguration and early career scarcely bore promise of the noble results which have since followed. Every Correspondent of every journal in Paris, concurs in giving it the highest amount of praise, and indicating that the Universal Exposition of Paris has accomplished a vast amount of good in nearly every branch of art, of science, and of manufactures.

And yet, this great Exhibition like our own Agricultural Exhibitions in Lower Canada, was installed amid an amount of confusion which could scarcely be exceeded, and many an ardent friend of the great enterprise, feared that its course and career would be more akin to that of the New York Exhibition, than to the London Exhibition of 1851. The result has been all that the friends of human progress could desire, and the impetus afforded to improvement will be felt in every quarter of the civilized world. We quote the fact as an encouragement to our own Exhibitors, and trust Lower Canada will never rest satisfied, until her Exhibitions are at least equal to those of any adjacent Province or State. The closing ceremonies of the Paris Exposition were so grand and imposing, that we quote them at length from the report of the special Correspondent of the *Montreal Gazette*—

PARIS, Nov. 15, 1855.

The Exhibition has closed to-day, and in the midst of the confusion and pressure of other duties, I have found it impossible to write you a description of the affair, but have been so lucky as to secure for the nonce the services of a friend, whose account of the ceremony I am happy to subjoin, satisfied you will lose nothing by the exchange:—

"One of the most extraordinary spectacles that Paris—long habituated to the most astonishing fetes of this nature—ever witnessed has just taken place within the walls of the Palais de l'Industrie. Those who recollect the installation of this famous Exposition—how, in the midst of the sound of the saw, the hammer, and the mattock—amid packing cases and half-finished masonry, and 'confusion worse confounded' everywhere—the Emperor and his lovely Empress did their best, by their patience and kindly encouragement, to bear up, and lead others to do so, against the fearful odds that assailed the undertaking, may well be surprised at a termination, the beauty and splendor of which are only commensurate with the signal and triumphant manner in which the Exhibition has gradually reached its climacterie. There was evidently a determination in the highest quarter that the whip hand, once got in the enterprise, there should be no slackening till the race was won. The 1st of November had no sooner arrived, than, as if by enchantment, the beautiful temples of the nave—those glorious *vitrines* marked with the talismanic words, "Industrie de Paris;" those stands of the cunning jewellers' art; those splendid collections of arms, of naval gear, of musical instruments, of porcelain; those superb light houses, and a thousand other wonders of industry, were removed; nay, fairly swept away; it seemed as if the necromancer's rod had but waved, and the deed was done. Indeed, an army of workmen took possession of this arena, and never quitted it, night or day, till a perfect *tabula rasa* was effected. Then came the carpenter's strong arm and cunning skill, and perhaps nothing that has been accomplished during the past eventful six months would have so astonished the people of Canada as the manner in which they accomplished their wonderful task. The Transept, it must be remembered, is some 200 yards in length, by 60 in breadth, that is, within the galleries, for if they are included, of course it is much more. But it is within these galleries, that the seat of operations lay, for this was the arena appointed for the ceremony of the distribution of the medals, of which I am now to give a brief account. The arches, which look down on the nave from the gallery, of which there are twenty-five on each side, and seven at either end, were at once converted into colossal opera-boxes, being some seven yards in width by about ten high. The backs were filled in with rich crimson velvet, and the sides and front hung with velvet and gold. From the centre of each *loge*, or box, hung a superb chandelier. This done, benches and scaffolding were arranged, falling in a gradual descent from immediately under the galleries, in a semi-circular form, till they reached over two-thirds of the space of the nave. These were covered with green cloth, and were made capable of containing between 30,000 and 40,000 persons. An interva was then allowed for the erection of th

various trophies which had received prizes, after which rose a dais elevated about four feet from the ground, where, immediately opposite the chief entrance, were placed the Imperial Canopy and Throne Chair. All this dais was covered, with crimson and gold, as were also the gorgeous fauteuils, which were to receive the Princes of the Imperial Family, the Ladies of the Court, the Senators and Legislative Corps, the Diplomatic Bodies, &c. The previous arrangements were so exact and perfect, that everything found its proper receptacle immediately on its arrival. The benches grew up as by magic, the upholstery unfolded itself like the leaves on a summer flower, which a single night has brought to maturity; the sound of the hammer was scarcely heard, when lo! before a man could turn round, and say behold! there was a Theatre, vieing, with all that fairy tales ever painted, or the brain of a poet conceived, capable of containing more than 30,000 persons, spread before you! Such was the anxiety to procure tickets, that 400 francs, in many places, were again and again offered for them.

"But time presses, and I have little time to describe the ceremony—the august ceremony of this day. Precisely at 12 o'clock the guns of the Invalides announced that the Imperial *cortege* was starting. The morning was misty with a frosty vapour which hung over the city; but the sun at this time suddenly broke through and in a few minutes the atmosphere was as clear as the brightest day in summer. At half-past 12, the *cortage* entered the Place de la Concorde, coming from the Garden of the Tuileries. A double file of troops lined the Grand Avenue of the Champs Elysees from the Industrial Palace up to the Tuileries. Small squadrons of cavalry moved in all directions to keep the space clear, but everywhere there reigned that perfect good humor and gaiety so conspicuous in all French assemblages. The procession was preceded by the Bands of the Guides, who, mounted on magnificent grey chargers, with scarlet jackets, low bear-skin caps, white plume and crimson tassel, looked superb as blowing their usual fanfarronade of trumpets, they gave notice of the approach of the Monarch of France. Following them came three carriages, drawn each by a pair of horses, they bore the Imperial arms, and the burly fat coachmen and trio of footmen behind wore the Imperial livery.—They possibly contained members of the Imperial Household. Then followed squadrons of cavalry. The Guides, in fact, presented a *coup d'oil* such as perhaps no other country but France could exhibit. Their horses are superb, as are all their appointments. The jackets, fitting closely to their persons, are green, the pantaloons crimson and gold, and as their low bear-skin caps and white plumes mantle in the air, it is not possible to imagine anything more martial and chivalrous than their appearance. Several other carriages then succeded, each with a pair of horses, when came a carriage-and-six containing His Imperial Highness Prince Napoleon. After this, with several squadrons of Dragoons filling up the interval, came the Emperor's State carriage, drawn by eight dark brown horses, escorted by grooms.—The Emperor and Empress sat fronting the horses, and opposite to them the Duke of Cambridge in the full regimentals of a general officer.

"When the imperial *cortege* entered the Palais de l'Industrie, the splendid amphitheatre was filled to the ceiling, with 50,000 persons, who all rose at their entrance. I would that time permitted me to give you a full account of the proceedings; but I have volumes to write, and only minutes to do so. Mr. Logan received for his geological chart, and most instructive collection of minerals, a Grand Medal of Honor, besides the Cross of the Legion of Honor. It must be remembered that the Grand Medal is superior to the simple gold medal, and only a very few of these were distributed. Canada received also a gold medal for her general excellence. The Emperor delivered these rewards with his own hands, and whem the whole ceremony was completed, all those that had been honored formed a passage, through which their Majesties passed, paying compliments as they went. The Emperor, on taking his seat on the throne, had Prince Jerome on his right; on his left, the beautiful Empress, who looked more beautiful than ever; and by her sat his Royal Highness the Duke of Cambridge, with the Princess Mathilde on his left. The appearance of the costumes of the Court, the Court Ladies, the Senators, the Legislative Corps, the vast assemblage on the benches all in full dress, the ladies in evening coiffure in the gorgious *loges*, was magnificent beyond any description I could possibly give you, and much must be left to the imagination of your readers, following out the faint outlines I have drawn. During the distribution, an orchestra of 1200 musicians played the choicest *morceaux*.

I may add to this narrative, that the Emperor's speech on the occasion, which you will of course take from the papers, was a splendid effort, which went straight to the hearts of his English and French hearers. The former, who were clustered round nearly in front of his Majesty, led off the cheers, which followed in a way to make the roof ring again, fairly drowning out the shouts of the others. I have seen it stated in American papers, that the people here really feel and manifest no enthusiasm towards their Emperor. If they had been present on this occasion, the most dogged doubter could not have disputed the genuine outburst of it.

Canada was hardly fairly treated about invitations to the closing ceremony. She was allowed only eighteen tickets, though she had 470 exhibitors. Among those present were Mr. Boulton and lady, Dr. Ryerson and daughter, Mr. Galt, M.P.P, and lady, Hon. Mr. Cauchon, M.P.P., and our own Commissioners. Mr. Logan was the third to receive the decoration of the Legion of Honor. You may be sure his friends here are delighted that he has received this new and well-merited distinction.

——:o:——

THE CANADIAN STEAM PLOUGH.

It must be very satisfactory to the Canadian Commissioners for the Paris Exhibition, and to Mr. Romaine, the inventor of the Steam Plough, and his friends, to find, after the large amount of money expended and the high degree of mechanical skill brought to bear upon the subject of steam cultivators, that the problem is at last in a fair way of solution by the well merited success of Mr. Romaine's invention. The Correspondent of the Toronto "*Leader*," writing from Paris on the 25th November, says,—

As far as I can learn, Mr. Romaine's steam-plough has been eminently successful. Mr. Romaine has made an arrangement with Crosskill, of Beverly, England, who will construct the machines and give him a per centage on the sale. The machine was not put into the Exhibition for fear of its being pirated! a very proper precaution. It is to bear the name of the "Canadian Steam Cultivator." No doubt it will soon come into general use in England. May the inventor reap the reward which so justly belongs to him!

The Crosskills, of Beverley, Yorkshire, are among the first Agricultural Implement Makers in the world, and they are the most unlikely people in the world, to embark the large amount of capital that will be required for the manufacture of Steam Ploughs, in any invention not likely to succeed. The very fact of their taking up Mr. Romaine's plough is a strong argument to our minds of its applicability to the purpose for which it is needed, and thus a Canadian mechanic will in all probability be the person to solve the problem of the application of steam to the cultivation of the soil, and in due course of time, we may hope to see the land ploughed by steam, with as much precision and regularity as the water. Mr. Parkes, an eminent Engineer, who has studied the subject of culture by steam very fully, thus sums up in a letter from Paris, dated 30th October, the superior advantages of Mr. Romaine's machine:—

1st. That, according to my judgment, the work done by this machine, in an agricultural sense, is more perfect than I have ever seen performed by hand or by animal power; more perfect even than I had scarcely permitted myself to indulge the thought could be accomplished by material power, at a single operation.

2nd. That, after estimating the power consumed, in an engineering sense, i. e. as regards the expenditure of steam for a given effect, experiments which the actual condition of the machine permitted me to make, I do not hesitate to express an opinion that the "Canadian Steam Cultivator," [as Mr. Romaine requests me to call his machine.] will prove to be more economical in its action, on farms of a certain size, than the combined animal and human labour at present in use. Further, that it promises other advantages to agriculture greater, perhaps, than are measurable by the mere economy of labour cost.

3rd. That this machine is not only adapted to the heavier and more costly operations of land culture, by which I mean such as are at present effected by horses, ploughs, and other implements in breaking up, cleaning and pulverizing land, but that it bids fair to be equally applicable to some of the finer processes of husbandry, such as seed-sowing, &c., &c., on many soils.

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LOCOMOTIVE STEAM ENGINE FOR AGRICULTURAL PURPOSES.

We take the following Report from the *American Farmer*. The inventor, Mr. Hussey, has also invented an excellent Reaping Machine, and the step is an important one, in respect to the application of steam locomotive power to the movement of agricultural implements. The committee of the Maryland Agricultural Society report as follows:—

The committee appointed to judge of the merits of the "Locomotive Steam Ploughing Engine," invented by Obed Hussey, of Baltimore, Md., respectfully report, that precisely at the appointed time the engine entered the ground selected for the exhibition, and was guided by the engineer with perfect facility to the place indicated by the committee.

Three large sized right hand flushing ploughs were attached, viz: Prouty & Mear's centre draught, No. 6, Ira Reynolds' steel edged No. 6, ditto, No. 5, and one left hand flushing plough, viz: Ira Reynolds' steel edged No. 5. These ploughs were attached by log chains at distances varying from fifteen inches to five feet, and each managed by a separate ploughman, consisting of two gentlemen from the Western and two from the Eastern Shore, at the head of whom was James T. Earle, the worthy President of the Society. The engine was then started at a uniform speed equal to that of a quick walking horse; the ground was thoroughly broken to a depth varying from seven to fourteen inches, and an average width of fourteen inches to each plough. The engine proceeded across the entire length of the area inside the horse track, being a distance of about two hundred yards, encountering a hard road bed and several large stones, without any diminution in the speed. The power required to perform the same amount of labor was estimated by the ploughman at that of sixteen horses. It was followed by a dense crowd of spectators, who were attracted there from all parts of the grounds to witness so novel and interesting an exhibition. Three cheers which made the welkin ring proclaimed the triumph of this noble effort of genius. The crowd were then requested to retire sufficiently to allow the committee to view the operation, when the engine was turned short round and ploughed back to the place of beginning; a right hand plough was then substituted for the left hand one, and the engine traversed the ground a third time, putting close along the edge of the ground previously ploughed. It is proper to remark that the engine was exhibited by the inventor merely to show the power of draught and the facility of backing and turning in any direction. The ground had been much trampled during the exhibition, and at one end there was a considerable ascent. The ploughs were all so far apart that each one had to break a separate furrow.

The committee regret that the necessity for making their report in so short a time after the exhibition, precludes a detailed description of this important machine.

They regard this as the first step in a great revolution in prairie farming, destined by its saving of labor and rapidity of execution, to bring under cultivation the immense extent of land still unsettled in our new States and Territories, many years sooner than could be done in the ordinary way.

In conclusion, the committee desire to express in the most emphatic terms, their unanimous opinion of the importance of this first successful attempt to construct a Locomotive Steam Engine for Agricultural purposes, and to the Society to award the inventer a premium of the first class, and a diploma expressive of the opinion entertained by the Society of the pre-eminent importance of this invention.

TENCH TILGHMAN, Ch'n.

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THE STEAM CULTIVATOR AT PARIS.

[*To the Editor of the Quebec Morning Chronicle.*]

SIR—I shall be obliged to you to publish the following extract from Dr. Taché's last letter just received from Paris, relative to Mr. Romaine's Steam Cultivator:—

"At the dinner of the Agricultural Exhibitors, Mr. Gale, of Paris, a Mechanical Engineer and author of the History of Mechanism of the 19th century,' &c., spoke as follows:—I feel a pleasure you will all participate in, when you learn that the problem of the application of steam to the cultivation of the earth is completely determined by a Canadian mechanic, who is proud of his French origin. But a few days since I saw this important machine work in a manner which leaves little to be desired." The Commissioners having advanced a considerable sum of money on this invention, it will be very gratifying to them, as well as to the public generally, to know that steam can now do for the cultivation of the soil what it has already done for other industries. Some time will, no doubt, be required to perfect Mr. Romaine's invention, but it is satisfactory to know that progress is making, and in the right direction.

I am, Sir,
Your obedient servant,
W. RHODES,
Acting Chairman Paris Exhib. Com.

Quebec, 26th Nov.,

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[copy.]

Paris Oct. 30, 1855.

To J. C. TACHE Esq., [M.P.P. for Canada.] Paris.

Sir,—Mr. Romaine the inventor of a Steam Cultivating Machine, having informed you that I had counselled him not to submit it to public gaze in the "Exposition," nor to bring it to the official notice of the Commission charged with the examination and reward of agricultural inventions, I beg shortly to state, at your request and for the information of the Canadian Government, the reason which induced me to advise Mr. Romaine not to exhibit his machine on the present occasion. In the first place, it is proper I should state to you that, on Mr. Romaine [with whom I was entirely unacquainted] learning I was in Paris he did me the honour to see me and request me, as an Engineer, who had devoted no inconsiderable time and practical attention to the subject of culture by steam, as well as to the consideration of the various and most fitting modes of adapting steam power to agricultural purposes, to examine his invention; to inspect it at work, and to give him my opinion, unreservedly on its merits and defects. He also requested me to impart to him such suggestions as might occur to me regarding the proper time and mode of introducing the invention to the public notice and use. Mr. Romaine warned me that some points of the machine were not in such a state of practical efficiency as was desirable, although the principles of its action, and its effect as a cultivating implement, might be found sufficiently developed, and on which a safe opinion as to their ultimate success might be based. The perfect truthfulness, as well as the modesty, of Mr. Romaine's communication, were quickly manifested on the trials of the machine, made by me in the field; but, apart from all reservations, I have much satisfaction in assuring you:

1st. That, according to my judgment, the work done by this machine, in an agricultural sense, is more perfect than I have ever seen performed by hand or by animal power; more perfect even than I had scarcely permitted myself to indulge the thought

could be accomplished by mental power, at a single operation.

2nd. That, after estimating the power consumed, in an engineering sense, i. e. as regards the expenditure of steam for a given effect, experiments which the actual condition of the machine permitted me to make, I do not hesitate to express an opinion that the "Canadian Steam Cultivator," [as Mr. Romaine requested me to call his machine,] will prove to be more economical in its action, on farms of a certain size, than the combined animal and human labour at present in use. Further, that it promises other advantages to agriculture greater, perhaps, than are measurable by the mere economy of labor cost.

3rd. That this machine is not only adapted to the execution of the heavier and more costly operations of land culture, by which I mean such as are at present effected by horses, ploughs, and other implements in breaking up, cleaning and pulverizing land, but that it bids fair to be equally applicable to some of the finer proceeds of husbandry, such as seed-sowing &c., &c , on many soils.

The considerations which have swayed my own judgment against the policy of submitting a machine of such great promise to so unbounded a publicity as would be consequential to its appearance in the Paris "Exposition," are based mainly on my appreciation of its exceedingly great promise, and on the fear lest, in any manner, the ultimate reward to be rationally expected from such great promise should be diminished to the Inventor, through premature notoriety, a result unfortunately too common to the parents of "nascent inventions." The machine, as at present constructed, is unquestionably defective in some details of practical import, and it would, I think, be obviously injurious to Mr. Romaine's future interests to make it an object of public exhibition until certain additions and improvements are introduced. These, though trifling, as regards the main principles, are, nevertheless, essential to the full practical developement of the power and beneficial performance of the invention. In making these observations on Mr. Romaine's invention, I trust, Sir, that I shall be acquitted of obtruding them unasked; and I beg respectfully, to assure you of my conviction that the generous aid afforded to the inventor, by the Government of Canada, is more likely to produce the desired result by submitting to a temporary delay, than by precipitating the public disclosure of this highly valuable invention.

I have the honour to remain, Sir,
Your most obedient servant,
(Signed,) JOSIAH PARKES.

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THE COUNTRY GENTLEMAN.—The proprietor of this paper and of the Albany *Cultivator*, Luther Tucker, Esq., announces that he has associated with himself Mr. Luther H. Tucker in the ownership and management of these publications—the new firm taking the title of Luther Tucker & Son. Mr. Tucker, Jr., is a young man of education and ability whose writings have already indicated his fitness for this situation. We trust the excellent papers alluded to will go on with increasing prosperity.

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Statement of the quantity of land in various crops competed for, and of the Produce obtained therefrom in 1855, the Headlands not being included in the measurement, with some account of the mode of their cultivation, on the Farm of Mr. James Logan, in the neighbourhood of Montreal:

	Arpents.	*Produce.*	*Per Arpent.*
			Tons. cwt. qr. lbs.
Indian Corn—12 Rowed Northern.	1.996	253 minots in the ear or 126 7-10 minots.	
Turnips—Swedish	1.20	21.. 2..3..12 or	17..12..1..15
Mangold Wurtzel—Yellow Globe.	1.226	32.. 2..3..12 or	26.. 4..1..11
" Long Red	0.826	20.. 0..0.. 0 or	24..19..2..22
Carrots—Long Red	0.822	12.. 1..1..20 or	14..14..1..12
" White Belgian	0.793	12.. 1..1..20 or	15.. 5..2.. 0
Potatoes—Cork Red	5.08	1518 minots or	298 8-10 minots
Horse Beans and Grey Pease	1.372	48 minots Beans or 10 " Pease or	35 minots 7 3-10 minots

The whole of the land on which these crops grew is a heavy clay soil, with a clay subsoil on a retentive bottom, with the exception of about two-thirds of the space under potatoes, and three-fourths of that under carrots which are sandy loam; the whole surface lying very flat and nearly horizontal: it is all underdrained, the part under the long red mangold wurtzel and horse-beans being not so thoroughly done as the remainder. It was all ploughed the previous autumn to a depth of not less than 8 inches, and carefully surface drained. For the carrots, manure was laid on in the autumn before ploughing and for the potatoes it was spread and ploughed in, in the spring. The whole of these crops were grown in drills at intervals, for the potatoes of 28 inches; for the carrots 22 inches; the horse-beans and pease 30 inches; the mangold wurtzel and turnips 26 inches and for the Indian corn 3 feet apart. The crop which preceded the carrots and potatoes was oats, the remainder of the ground was the previous season under wheat which had been sown down with grass seeds intended for hay, but these in consequence of the drought of that season, having in great part failed to grow, the land was again broken up. Barn yard or stable manure was applied to all the crops, spread on the land and ploughed in for the carrots and potatoes as before stated, at the rate of 25 cart loads per arpent and for the other crops put into the drills at the rate of 18 loads per arpent for the beans; 25 loads per arpent for the mangold wurtzel; 20 loads for the turnips and 30 loads with a small mixture of night-soil for the indian corn. After being ploughed in the Autumn the land under corn, yellow globe mangold wurtzel and turnips was laid up in drills for the winter; in the spring the manure was laid into these drills for the yellow globe M. W. and covered, thus making new drills, the tops of which were rolled smooth to receive the seed; but for the corn and turnips the autumn made drills were broken up and the land wrought with the plough harrow and roller to pulverise it, after which drills were again drawn, the manure deposited in them and covered and the roller passed over to smooth them preparatory to planting. For the beans, and long red M.W., after ploughing and harrowing in the spring, the drills were made, the manure put into them and covered and the roller applied. For the carrots the land was ploughed, harrowed, and drills made in the spring. The potatoe land, having been ploughed to cover the manure, only required harrowing and the drills to be made before planting.

The horse beans with one third mixture of grey peas, were sown by hand in the drills on the 4th and 12th of May, the quantity of seed for the whole space not exceeding 13 gallons.

The long red mangold wurtzel seed was planted on the 5th and 6th May, at intervals of 14 inches—4 to 6 seeds being deposited in a small hole made and covered by hand.

The carrots seeds were sown by seed drill, the quantity of seed being 2lbs of each kind for the whole space.

The Potatoes were planted on the 12th of

May, at 9 to 10 inches between the sets, the quantity of seed 14 minots per arpent.

The yellow globe mangold wurtzel was planted on the 16th of May, in the same manner as the long red.

The indian corn was planted on the 22nd of May, by hand-hoe and hand, at 3 feet intervals in the drills, 4 to 5 grains being set separately from each other in earth made friable with the hand-hoe.

The turnip seed was sown by seed drill on the 2nd June, the liberal quantity of 5lbs of seed being given to the space sown.

None of these seeds were steeped except the mangold wurtzel, one half of which was steeped in water for 24 hours, the other half left dry--the steeped and dry seeds being mixed together and planted at the same time.

The after culture consisted chiefly in the use of the plough, (double and single mould board,) and drill grubber between the drills, and the hand-hoe and hand weeding in the drills as often as considered necessary to keep the soil open and friable, and effectually keep down the weeds. When the indian corn was about 6 inches high, the plants at each interval or hill were reduced to 4 in number, by pulling up the weakest, and at this time about a gill of gypsum was sprinkled on and about them, and afterwards hoed in by hand-hoe. When the mangold wurtzel and carrots were judged sufficiently strong the singling was done by hand, the latter being thinned so as to leave the plants at about 4 to 5 inches apart, and the former reduced to a single plant at each interval by pulling up all but the most promising one. The singling of the turnips to a distance of about 10 inches between the plants, was done by the hand-hoe, as is practised in Scotland—by this mode many of the plants are apt to be left with a very slight hold of the ground, which, in the moist climate of Scotland, is supposed to be beneficial rather than injurious to the crop; but, in the dry atmosphere prevailing here, many of the plants so left are likely to perish, and cause blanks in the crops. It is, therefore, thought singling in part by hand should be preferred in Canada. Before the potatoes came through the ground, the drills were harrowed down with the drill-harrows, and at the proper times paring and earthing up were executed with the plough in the usual way. Attention was give to surface drainage throughout.

Remarks.—The carrots were much longer than usual in coming through the ground, and came up irregularly, and on the clay soil, (about one fourth of the whole space,) they were a very thin crop. The potatoes on the clay land were affected by the disease, while on the sandy loam they were almost free from it; in gathering, the potatoes were put into long narrow pits, and only carried to the roothouse when the weather became cold, by which time diseased tubers showed themselves, and were thrown aside—those stored in the root-house have since remained as sound as when put in. The produce of the beans and peas first sown is of better quality, while the yield of the last sown is greater in quantity. The object in view in steeping half the mangold wurtzel seed and planting with the other half dry, was to secure an early growth if possible, and a certain one at any rate, as well as a chance of the early or the late plants escaping injury from grubs or vermin.

Montreal, *Dec.*, 1855.

Note.—By adding one fifth to the produce of the arpent a near approximation to the proportionate produce of the English statute acre will be obtained, and 5 per cent, or one-twentieth, added to the number of minots will give the imperial bushels.

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FARMING IN THE LAND OF NOD AND FARMING IN CANADA.

What ever may have been the first occupation of man it is pretty clear that the business of cultivating the ground was forced upon him at a very early period in the world's history. Adam and Eve were apparently hurried out of a tropical into a cold climate. While in Eden exertion was unnecessary; every want was satisfied; and every wish but one could be gratified without a penalty. In the whole of the garden, only the fruit of the tree of knowledge, from which the difference between good and evil was to be felt, was interdicted, and yet the forbidden fruit was indulged in, and the disobedient couple sent to the Land of Nod. Perhaps, nay it is more than probable, that the fall of man was pre-ordained. But, however that may be, the result was emigration and industry, and the peopling of the whole earth. From that hour, human troubles began—from that hour "man was born unto trouble as the sparks flee upward." There are yet nevertheless favored spots of earth where the human race can live almost without exertion; but in such spots man degenerates—neither the sciences nor the arts flourish—man seems to be in his primitive condition. It is in temperate climes that industry most prevails, and it is in regions comparatively sterile that agriculture is most scientifically pursued. The mind is most active when vegetation is almost the least so, to an extent indeed realizing the proverb—"necessity is the mother of invention." Had the soil and climate of Scotland, for instance, been more favorable for natural production than it is, the science of farming would not there have reached so high a standard—agricultural chemistry would have been less understood—and the plough, the harrow, and the rake would have been of an inferior description. Necessity has forced upon the agriculturist manuring, draining, and rotation of crops, as it has forced upon the manufacturer the institution of machinery for manual or animal labor. And labor begets labor, science begets science, one discovery leading to other discoveries, and to the conclusion that there is ever something to be discovered. The coldest soils have been rendered extraordinarily productive by the application of artificial heat. The grass has been stimulated by electricity, and indeed the summer's sun almost rendered unnecessary by the attainments of science as applied to agriculture. In the United Kingdom of Great Britain and Ireland, notwithstanding the bleakness of the atmosphere, science has caused the earth to bring forth more abundantly than in countries better favoured by nature; and to this cause is to be attributed the result. Here, vegetation is extraordinarily rapid, the winter's snows acting as a warm covering for the ground, which also during our short summer has the benefit of a tropical sun's heat. In some parts of the country almost two crops of wheat may be raised; but in this section of it we not only have been contented with one crop, but have almost trusted to providence entirely for its production. In Lower Canada, the farmer will hardly take the trouble to clear his land of stones, or if he does do so, instead of using them as dykes or in road-making, he only piles them up in the middle of his field.—Ploughs, winnowing machines, even carts, are of the rudest description. Draining, subsoiling, manuring and rotation of crops are scarcely dreamed of unless by the few gentlemen farmers, who do not sell sufficient to cover their expenses, because farming with them is a pleasure not a business. There is of course an excuse for the indifferent farming of Lower Canada. Every farmer raises enough to satisfy his wants. Few farmers pay rent, and fewer still care to amass riches. There is too much contentment. There is too much ease for exertion. Even when a farm becomes too small for the support of a family, the only remedy which suggests itself is removal of a part of the family to some other spot of earth, on which they feed like locusts, and then change again. Of course the want of good roads in the interior to bring farm produce to market operated in producing the indifference to laborious agriculture to which allusion has just been made; and the introduction of railroads must to some slight extent effect a change. Indeed, when once the love of money—riches that is to say—is felt, cupidity will suggest to the Canadian farmer the employment of means to make the land more remunerative, and thereby enrich the country as well as himself. It is, indeed, on agriculture that all else depends. Linen cannot be made without flax, nor cloth without wool; and machinery and ships are the result of agriculture and manufactures. However the landed interests may be railed at by trading interests, without the former the latter could not exist. Sugars, teas, corn, wood, flax, cotton, hides, and, indeed, every article of exchange owe fealty to the landed interests, and have made gold what it is. How essential then is it that the cultivation of the soil should be attended to. Were it only well known to every farmer that a judicious system of underdraining would double the products of a farm, what farmer would refuse to incur the expense if a market was easily accessible? If every farmer knew the value of manure

what farmer would neglect manuring? If every farmer knew practically the value of the rotatory system of sowing what farmer would neglect it? These are matters, unlike the importation of improved breeds of cattle, which can be attended to without much expense, and yet the Canadian farmer now troubles himself very little about them. The difference even between deep and shallow ploughing is not recognised. The farmer of Lower Canada, at this hour, is contented to use the same means of production, as were used by his great grandfather; and that only because his agricultural education has been unattended to, and because his wants have been too easily satisfied.—*Quebec Gazette,*

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THE RIND OF FRUIT INDIGESTIBLE.

This fact cannot be too strongly impressed upon the public. It applies to all fruits, without exception, and includes also, the pellicle or skin of kernels and nuts of all kinds. The edible part of fruits is particularly delicate, and liable to rapid decomposition if exposed to the atmosphere; it is, therefore a, provision of nature to place a strong and impervious coating over it, as a protection against accident, and to prevent insect enemies from destroying the seed within. The skin of all the plum tribe is wonderfully strong, compared with its substance, and resists the action of water and many solvents in a remarkable manner. If not throughly masticated before taken into the stomach, the rind of plums is rarely if ever, dissolved by the gastric juice. In some cases, pieces of it adhere to the coats of the stomach, the same as wet paper clings to the bodies, causing sickness and other inconvenience. Dried raisins and currants are particularly included in these remarks, showing the best reasons for placing the fruit upon the chopping board with the suet in making a pudding of them, for if a dried currant passes into the stomach whole, it is never digested at all. When horses eat oats or beans that have not been through a crushing mill, much of this food is swallowed whole, and in this state, perfectly indigestible, the husk or pellicle resisting the solvents of the stomach, there is so much less of nutrition. Birds, being destitute of teeth, are provided with the apparatus for grinding their seed, namely, with the gizzard, through which the seed passes, and is crushed prior to digestion. The peel of apples and pears should always be cast away. Oranges we need not mention, as this is always done. Orleans, greengages, damsons, and all plums, should be carefully skinned if eaten raw, and if put into tarts they should be crushed before cooking. Nuts are as indigestible as we could desire, if the brown skin be not removed or blanchd, as almonds are generally treated.

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A SKETCH OF PIPE IRRIGATION IN SCOTLAND, *June*, 1855.

On the 26th of May, we visited the celebrated farm of Myre Mill, in Ayrshire, belonging to one Mr. Kennedy, and occupied by another gentleman of the same name. We took the first train from Glasgow to Ayr, and then proceeded about 9 miles through a pleasant and well cultivated country. We did not find Mr. James Kennedy at home, but were shown over the buildings by a very intelligent man. The farm consists of about 230 acres, all laid with iron pipes; but Mr. Kennedy has two other farms near at hand, making altogether about 700 acres which he occupies. There are about 60 acres under Italian Rye-grass. In 1854 27 tons weight were cut at the first cutting. It was cut four times and then pastured; 600 sheep and 230 beasts are kept on this food in summer. The sheep are changed three times in the course of the year, or rather there are three lifts or sales. The sheep-house was the most remarkable feature here. It contained 460 sheep in pens, with sparred floors raised 18 inches from the ground, 10½ feet by 7; width of house 18 feet, one side opening at pleasure with sliding wooden rails; a feeding passage of 4 feet wide down the centre. There are 10 sheep in a pen. The man who had charge of the sheep said that he thought a better width for the house would be 16 feet, so as to give more front for the pens to the feeding trough, by making them 12 feet by 6 feet. The black-faced Highland wethers seemed to thrive best, we were informed.

It is worthy of notice that Mr. Kennedy gives his sheep distillery grains, and goes to some expense to obtain them. They are brought all the way from Campbelltown, in Argyleshire, by steamer, to Ayr, where the cost is 3½d per bushel; from thence they are carted 9 miles with a toll to pay of 6d per load. Sheep like them best when old and fermented. There are four tanks for liquid manure, holding 30 000 gallons. The ammoniacal liquor from the gas-works mixed with water is sometimes applied, the liquid being brought in barrels. The Italian Rye-grass seemed to have suffered from the late severe winter. It was thin on the ground, with a considerable amount of weeds or natural herbage, and not more than 8 or 9 inches high on the 26th of May. The spring sown Grass was coming up, but foul with weeds, thin, and not regular. The cattle-house is 33 feet wide for two rows of cattle, two feeding passages 4 feet 6 inches wide next to the walls; double stalls 6 feet wide; stone divisions 4 feet high, length of the stalls 7 feet 6, including stone feeding-troughs. Heel drain 2 feet wide, manure-passage in centre, 5 feet between the heel drains. A single rail along the top of the feeding passage, side open from thence down to stone feeding troughs. Floor of stalls tile, no wooden floor; rails and bedding as usual. There were many cattle besides in boxes, two in each. The pigs were given up and the houses about to be turned into sheepsheds.

On the 25th of May we visited the farm of Lagg, about six miles from Ayr, on the property of the Marquis of Ailsa, and in the occupation of Mr. Ralston. This farm is situated at a very high elevation, and the application of the liquid manure is done on the most economical plan. The liquid from the farm building is conducted by means of earthen pipes into three small circular open tanks, and from them flows down by gravitation upon about 40 acres of land at a much lower level. Besides the liquid, artificial manures are sometimes applied. We were shown one field of 10 acres, where Peruvian guano and sulphate of ammonia had been used on different portions, but in equal quantities. The latter had produced the more marked effect. The Italian Rye-grass had been mixed with Clover, and sown with a Wheat crop the year previous. The two years' old Italian Rye-grass had been all destroyed by the severe winter, and the ground ploughed up. There were two cattle houses for 30 beasts each, but no attention paid to appearance alone. The cattle were in single rows, with a feeding passage at their heads, at one end of which was the boiling-house and an iron rail-way from it along the passage. There can be little doubt that the application of liquid manure, as carried out on this farm, must be remunerative from its economical application.

On the 25th of May we also paid a visit to Canning Park, the well-known farm of Mr. Telfer, and we derived more gratication from this visit than from any other on our tour, from the fact of forming the acquaintance of the proprietor, whom we found to be not only an exceedingly well-informed and intelligent gentleman, but most politely ready to give the results of his scientific studies, his persevering experiments, and practical experience.

The cow-house here has been so often described that we do not propose to enter minutely into it at present; we can only say this, if the cows are not comfortable here, they can be so nowhere under cover. We found 48 tied up in double stalls, 6 feet 6 inches wide, and 7 feet 6 inches long from the feeding passage to the heel. This drain has a perforated iron bottom to drain away the liquid, and there is a neat shovel on wheels, which fits into it exactly, for removing any solid excrement. Each cow has her own stone feeding trough, and the divisions and pavement of the passages are also of dressed stone. Each cow has a matting of cocoa-nut fibre the first 3 feet of her stall to kneel on, and the skirting of the walls behind the cows, we observed, was lined 4 feet high with slate. There were sky-lights in the roof with sliding blinds, and double doors and windows made to slide also—glass and wood for winter, and a kind of close net-work of hemp or cocoa-nut fibre for summer. The whole of the arrangements for the dairy were excellent. No pains or expense is spared to produce the best description of butter, and we were not surprised to hear that it was sent regularly to London, where it brings a high price, from its superior quality. The whole of the milk is weighed at each milking, for which purpose there is a weighing machine in the cow byre.

The crops were looking well notwithstand-

ing the serere winter and spring. Some of the two-year-old Italian Rye-grass had given way entirely, and had to be resown. Mr. Telfer uses the sulphate of ammonia as well as the liquid manure for his Italian Rye-grass with the best effect. His young Wheat crop was the thickest we ever saw upon the ground, and we ventured to observe that if each alternate row was removed there would be quite sufficient plants for a first-rate crop. His answer was the result of his last year's Wheat crop, as follows:—On 4¾ acres of Wheat he averaged 85 bushels per acre, of 60 lbs to the bushel, although four-fifths were lodged six weeks before reaping. The straw weighed 5 tons to the acre, and the seed sown on the whole field was 12 bushels. One acre produced 108 bushels, of 60 lbs to the bushel.

We conclude this article with something for our agricultural readers to ruminate on. One ton of Italian Rye-grass is stated from analysis to contain nutritive qualities equal to 4 tons of White Turnip, so that 60 tons of Italian Rye-grass, which under the liquid manure system has been grown by Mr. Telfer, and from our own experience we believe may be grown by any one, on a single acre, are equal in feeding properties to 320 tons of White Turnip! A pretty fair return for one acre. *J. A. C.—London Gardeners' Chronicle.*

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AGRICULTURE OF LOWER CANADA.

In treating of Neat Cattle, I did not propose that we should put away all our present stock, and procure at once larger and more favorite breeds. I only recommended that the cattle we have shall oe properly managed, and be well kept, so as to bring them to as great a degree of perfection as they are capable of attaining. I have been always opposed to hasty and sweeping changes, as they seldom succeed, because they are not sufficiently understood to be carried out in a proper manner. When we acquire the art of managing cattle in a judicious manner, we shall be better qualified to judge of the defects and the perfections of different breeds, and be able to decide what description of cattle will be the most suitable and profitable for us; and changes may be introduced gradually, when we perfectly understand what they should be. It will be more prudent to practise a new system of feeding and management, to ascertain its effects upon the cattle we are accustomed to, than to introduce other breeds of stock, and subject them to the feeding and management that has not succeeded with the cattle we have. Small sized cattle will be sure to improve on good muss, and under proper management; but to subject large sized cattle to bad pastures and insufficient muss in winter, would reduce them to a worthless condition. This is the result to be apprehended from the introduction of larger breeds of cattle until the improvement of agriculture is more generally advanced. There cannot be any objection to a farmer keeping cattle of any size, however large, provided he brings them to the greatest degree of perfection they are capable of. There certainly is a great difference in qualities of different breeds of animals; but whatever breed is cultivated, they must be improved to the uttermost of which they are capable, or they cannot be profitable. I do not mean that cattle should be fed in the stalls for two or three years, to bring them to this great perfection, but that they should be fed in the regular way that practical farmers adopt in feeding cattle. It may be very well to feed one animal of a particular breed until it becomes nearly all fat and tallow; but this is only an experiment to ascertain what an animal may be brought to, and cannot, and ought not to come into general practice. There is no necessity to make animals over fat, nor can it be profitable for the farmers to do so, or for the consumers of meat to purchase that which is over fat, or fat in extreme. The proper management of our neat cattle is a matter of very great importance to the farmers of Lower Canada, and would make an immense difference in the profits derived from their farms. If any proof was necessary that the summer fattening of cattle and sheep is not much practised here, I may state that there was scarcely any competition for the premiums offered at the three last Annual Provincial Exhibitions, in the classes of fat cattle and fat sheep, and not even sufficient competitors to take the premiums offered. This circumstance struck me as very extraordinary to have occurred at the last Exhibition at Sherbrooke, in the midst of the Eastern Townships, so well adapted for pastures, and for the raising and fattening of cattle and sheep. It is true farmers might have such stock, and not show them; but these Exhibitions are established for the express purpose of showing the products of the country, and the progress which agricultural improvement is making, for the liberal grants by the Legislature for its encouragment.

SHEEP.

With regard to sheep, it is satisfactory to be able to state, that we have a large number of excellent sheep now in Lower Canada, chiefly of the Leicester breed, and crosses with native Canadian sheep. This class of animals increase so rapidly under good management and suitable food, that there cannot be any difficulty in the improvment of this useful stock, if farmers will only adopt the means that are in their power. There is, however, a material change necessary in their management to make them as profitable as they might be to their owners. Confinement to small pastures in summer is not in accordance with the nature of the sheep, and on the general average of farms, the pastures are very limited in extent, and together with this disadvantage, sheep are very frequently encumbered with wooden yokes on their necks, to confine them to these pastures, that are, in many cases, not sufficient to feed them. There is not any farm stock that will suffer more by this sort of confinement than sheep, particularly if of any other breed than the pure Leicester. They breed, as they are kept in the old country, always in fine condition, are not fond of rambling, because they are too fat to leap over high fences.

The shelter and quality of the food in winter is also defective particularly for breeding ewes. This, I believe to be the cause of a very small return in lambs, in proportion to the ewes kept. Breeding ewes, in the lambing season, should be kept separate from other sheep, and carefully fed with nutritious food, (of which a part should be grain) and constantly attended to. In England and Ireland, they consider it very unsuccessful sheep-breeding, if they do not raise at least one lamb to every breeding ewe they keep, and in some instances, they have from 50 to 72 per cent over one lamb to each. Now, if we compare sheep-breeding in England and Ireland, we may understand the vast deficiency and loss resulting from our management. Another defect with us is: allowing the male lambs to remain unchanged until nearly full grown. In Britain this operation takes place when the lambs are about a month or five weeks, old, on all males not kept for breeding, and we should adopt the same plan if we desire to have good mutton, and our mutton, and our sheep thrive, pastured together as they generally are: all sexes and ages, and at all seasons of the year. The different ages and sexes cannot conveniently be kept separated as they invariably are in a well managed flock of sheep in the old country, and they never will thrive properly unless they are kept separated when necessary. If we, therefore, determine to keep sheep and make them profitable, we should do all in our power to conform to the most approved system of sheep-management, and if we do not, we shall not find them profitable stock; no matter what breeds we keep. It may be replied, that notwithstanding all my objections; we have very good, well flavoured mutton and lamb in our markets, and I admit the fact. Our mutton and lamb, particularly when properly fattened, is equal, if not superior in taste and flavour, to any I have ever seen, but I regret to say that a large portion both of the mutton and lamb is not sufficiently fat to be deserving this character. Our wether mutton here, is not often kept to the proper age to be of the best quality, though I think they would pay well, if properly kept to two years, or between two and three years old. Indeed we never considered them good mutton in the old country until over two years old, because they had not attained full size until then, and very particular parties thought mutton not good until after wethers had attained three years old at least, and the nobility and gentry, generally kept them until that age for their own use. No doubt wether mutton cannot be of the best quality until the animal has come to the full size, but they

are seldom allowed to come to their due perfection in Canada. It may be desirable that animals should come to early maturity, but it is very questionable if sheep can be brought to maturity or perfection before they are fully two years old, or perhaps three years old. They may be made very fat, and a great weight, but the flesh may not have attained the perfection it is capable of at a more advanced age notwithstanding.

The Leicester breed of sheep is very much esteemed in England for their early maturity, but still I do not think their mutton so good when under two years old, as when they exceed that age. There is not perhaps, any breed of sheep that will be found to succeed better than the Leicester when under judicious management but I do not think the pure Leicester the most suitable breed for farmers who do not keep them as this variety of sheep have been kept, to bring them to the great perfection they have obtained. A cross with a Leicester ram and Canadian ewes has produced a good, hardy and profitable description of sheep, and this will be the best plan of improvement to adopt under present circumstances. There are not many of the South Down breed of sheep in Lower Canada, and the few we have are not of first quality. I saw at the great Exhibition at Boston, last October, some South Downs imported by Col. Morris of the State of New York, the best I have ever seen. I think I may venture to say they were faultless, in regard both to perfection of form, and having a heavy fleece of excellent wool. These sheep are known in England as an improved variety of the South Down, and I think they would answer well in Lower Canada. No doubt a cross between them and the Leicester, or the Canadian sheep would produce very useful sheep, both in carcass and in wool. The Cheviot breed of sheep is favorably spoken of and from the description I have read of them, they might be very suitable for this country; but I have never seen any of the breed, and therefore cannot speak of them from experience, or having seen them. What are known as the French or Spanish Merino sheep, are not favorite breeds with me, though the wool they produce may be very valuable. I think them also a tender stock, and not well adapted to our climate. They certainly have not any beauty of form to recommend them, and they never appear to me to be in good condition, or fat, like other breeds of sheep. I have never kept any of the breed, and therefore cannot say from personal experience whether they are profitable or not. The question for the farmer is, will the fleece of the Merino sheep make up for the deficiency of the value of the carcass? I certainly have seen a good kind of sheep produced from a cross between a Merino ram and Leicester ewes. I would, however, prefer the Leicester and South Downs, and crosses between them, and betwen each of them, and our native Canadian sheep. As I before observed, the improvement of our sheep is quite in our own power, and every farmer may be assured that whatever breed of sheep he cultivates, they will increase in number, and produce wool and mutton, in proportion to the care and good management bestowed upon them—in feeding them properly in summer and winter, and providing them with the necessary shelter. In England and Ireland, where there are only a few sheep kept on a farm, they scarcely ever attempt to fatten them, but the wether hoggets and dry sheep are sold to graziers, as in the case of neat cattle, who keep them to maturity, and fatten them. This plan would be certainly the best here also; but it would not be easy to persuade farmers to adopt this plan, as they are in the habit of manufacturing the wool—a very commendable practice, and one I would be sorry to see discontinued. The farmers, however, might keep sheep to give them sufficient wool, but if they have not the means or opportunity to fatten the wethers, and dry, and old sheep, it would be much better to sell them to graziers, who would be able to fatten them properly. There must be a thorough change in the management of our sheep, as well as in our neat cattle, or they will not remunerate for their keeping. The profit derived from neat cattle and sheep should be a very large item in the general products of agriculture in Lower Canada, and it must be the farmer's own fault if it is not so.

I have been writing on the subject of agricultural improvement for more than a quarter of a century, and I cannot but ask myself, what good has it all produced, or what benefit will any of my future communications produce? I see great defects in our agricultural system, and it appears as if I could not forego any opportunity of pointing out these defects, and suggesting such improvements as, in my humble judgment, would be advantageous. If agriculturists do not approve of my suggestions and will not adopt them, I must only conclude they have good reasons for rejecting my suggestions.

SWINE.

The management of swine in Lower Canada is not liable to much objection. Perhaps in no country is there better pork, and this I attribute to fattening with peas and bruised grain. The breed of swine in general is far from being a profitable variety; they are of very objectionable form, and difficult to fatten, and in consequence cannot remunerate adequately for the food they consume Fortunately we have some superior swine in the country, and as they increase more rapidly than any other farming stock, it is quite possible to introduce an improved breed in a very short time throughout the country, if farmers only take the trouble to do so; and if they will not take this trouble, it is useless to discuss the perfection or superiority of any one particular breed over another. A good breed of swine, of that approved form, that will come to early maturity, and fatten readily, would be a great benefit to farmers and to the country generally, and in a very short period there need not be any other than a good and profitable breed in the country. There is not one circumstance that can be advanced to justify our continuing to keep a really inferior and unprofitable breed of pigs, when we have it in our power to constitute a good and profitable breed in their place, without incurring any great expense in making the change. The mode of keeping swine here in summer, in many instances, on very poor pastures and with wooden yokes on their necks, is very objectionable. They certainly might be well kept in summer on good pasture, that would be so enclosed, as to make it unnecessary to have yokes on them. They should be kept well rung to prevent them rooting, and with very little other food, they would grow, and keep in good condition during the summer. As regards swine, little need be said, as farmers generally understand their management better than I can tell them. The principal objection is, that the breed of swine is very generally not a profitable one, and farmers by all means should introduce a better breed as soon as possible. Pigs with short heads and short legs will pay better for the food they consume, than those with long legs and long heads, which are the characteristics of a large proportion of the present breed in Canada. Pigs might be kept on pasture in summer to great advantage, if kept separate on suitable and abundant pastures, well fenced, and kept constantly with rings in their noses, to prevent them rooting. Pigs would thrive very well on good grass or clover, with a small allowance of other food daily, and a constant supply of water or other drink—of course they should have proper shelter both from the sun and from rain. The fattening of swine is very well understood by farmers in Lower Canada; a good breed or breeds of swine are what is most required, to replace the bad and unprofitable breeds we have. I wish it was possible to improve our cattle and sheep, and manage them to advantage as readily as we can the stock of swine, and we should have little to complain of in the management of live stock in Lower Canada.

WM. EVANS.

Cote St. Paul, December 13, 1855.

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TWO MOUNTAINS AGRICULTURAL SOCIETY NO. 1, COUNTY OF ARGENTEUIL.

The Annual Exhibition of this Society was held in the village of St. Andrews, on the 27th September last.

The weather being favourable, a large concourse of visitors assembled at an early hour, to enjoy a view of the numerous and very superior entries.

About 12 o'clock, P. M., the display was in its perfection. There was not, perhaps, so great a competition in horses as had been witnessed on some former occasions, but marked improvement and increase were evi-

dent in the other classes, especially in Swine and Domestic manufactures. The tardy process of a fair and minute inspection by the Judges, concluded, and the usual publication of the awards having baen made by the Secretary, the former were suitably entertained at the " Mill Inn."

It is to be regretted, that notwithstanding the liberal contributions of the inhabitants of the Township of Chatham towards the funds of this Society, the Directors were unable, on account of the absence of sufficient accommodation, to sanction the holding of the Show in that immediate vicinity; doubtless another year, some plan may be devised to remove this slight objection, in order to carry out the rotary system which has proved so beneficial in encouraging and facilitating competition.

The awards were as follows :—

Best managed Farms.

1 Andrew McGregor, 2 Thomas Jefferson, 3 James Woods, 4 John Burwash, 5 William Drew, 6 Albert Burwash, 7 John Wainwright, 8 Robert Turnbull.

Hay.

Ivery Fuller, John Wainwright, James Woods, Andrew McGregor.

Barley.

Samuel Burwash, John McPhee, James Clarke.

Tall Wheat.

Orlando Powers, Thomas Morrison.

Rye.

Edward Jones, Paul Doig.

Wheat.

John Wainwright, Thomas Jefferson, William Drew, Andrew McGregor.

Oats.

Allan McDonald, James McEwet, John Wainwright, James Woods.

Pease.

Andrew McGregor, James Robertson, Allan McDonald.

Corn.

John Wainwright, Martin Luoz, James Barclay, Stephen Burwash.

Maslin.

Martin Albright, Robert Doig, Daniel de Hertel, Martin Leroy.

Potatoes.

Samuel Hill, Thomas Jefferson, Duncan McGregor, Robert Crozier.

Carrots.

John Wainwright, John Paul, Thomas Morrison, James Hendrie.

Rutabaga.

James Draper, James Woods, Herman Nichols, John Smith.

Mangle Wurtzle.

James Woods, John Wainwright, John Paul.

Stud Horses.

Martin McMartin, Robert Thomson, Toussaint Rebasto.

Brood Mare and Foal.

John Wainwright, Andrew McEwet, James McEwet, Martin Leroy.

Stud Colts, 3 years.

James Woods, John Grant, Albert Burwash.

Filly, 2 years.

James McEwet, Ivery Fuller, John McGrewer.

Stud Colt, 2 years.

Martin Albright.

Yearling Colts.

Andrew McEwet, Duncan Dewar.

Rams, 2 Shear.

James Gordon, John Wainwright, Andrew McGregor.

Yearling Ewes.

Martin McMartin, John Wainwright, Duncan McMartin.

Old Ewes.

James Clarke, John Grant, Duncan McMartin, James Gordon.

Young Boar.

Thomas Jefferson, Heman Nichols, James Cowan.

Aged Sow.

Heman Nichols, John McPhee, John McConnell.

Young Sow.

Heman Nichols, Thomas Jefferson, James Cowan.

Old Bull.

James Gordon, Martin Albright, John Wainwright.

Bull 2 years.

Martin McMartin, William Johnson, Alexander Gordon.

Yearling Bull.

Duncan McMartin, Robert Doig.

Milch Cows.

Martin McMartin, Duncan Dewar, Ewen Cameron, Allan McDonald.

Heifer, 2 years.

Orlando Powers, C. S. Forbes, James Gordon.

Heifer, 1 year.

James Barclay, Duncan McMartin.

Etoffe.

Ewen Cameron, William Barron, Robert Doig, James Hendrie.

Butter.

Albert Burwash, William Drew, Archibald Graham, Martin Albright.

Cheese.

Martin McMartin, John McEwet, Thomas Jefferson, George Glynes.

Dressed Cloth.

James Woods, Paul Doig, Martin Albright, Duncan McGregor.

Flannel.

Thomas Robertson, James McEwet, Paul Doig, James Hendrie.

Farm Rake.

Edward Leroy.

The Ploughing Match took place on the farm of Mr. Rinaldo Fuller, at Chatham, on the 17th October last, when the following premiums were awarded :

Mens' Class.

William Rodgers, William McFarlane, David McCulloch, Waller Pollock.

Boys' Class.

George Lowe, Abraham Gagnier, James McBeth, George Lockie, David Rodgers.

Draught Horses.

Andrew McGregor, James McBeth, James Lowe.

H. Howard, *Secy.-Treas.*

St. Andrews, 1st Nov., 1855.

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WHY IS A THOROUGH BRED BETTER THAN A COMMON BRED.

We have received a few queries from one who subscribes himself a " Beginner," and who wishes to know why a thorough bred animal, such as a thorough bred Durham, a thorough bred Hereford, or Jersey, or Devon, is any better than common cattle. If says he, I have a common bred, say native cow, if you please, equally as large and equally as fat as a thorough bred Durham cow, why is she not as good, and why should she not command as much money in the market as the thorough bred Durham cow, or Devon? If you wish to obtain merely the beef, hide and tallow, to be sold in the shambles, perhaps the common bred cow may be worth as much as the other. Or if you want milk or work, you may perhaps find some of the common bred as valuable as the thorough bred. But here lies the difference,—if you wish to breed from them you are not sure of getting the like from the common bred, while you may be very certain of getting the like from the thorough bred. The thorough bred of any breed, have had their peculiar characteristics fixed by a long and careful and thorough course of breeding, it may be for centuries, so that they are pretty sure to produce a progeny possessing the characteristics of their parents. Not so with the common bred. If you have one of them, for instance, that is very good for milk there is no certainty that her progeny will be good for milk. If you have one possessing a desirable colour or form, you are not sure that its progeny will possess either; while with a thorogh bred you are. Take a Hereford, for instance, with his solid, compact, mahogany coloured body, and white face, and you may predict, with much certainty, that all their calves will possess the same distinctive characteristics; so of Durhams, so of Devons, so of Jerseys

Hence, a thorough bred is more valuable than the common, not for its amount of beef, or bones, or hide, or tallow, but for the inherent capacity they have for producing their like to a great degree of certainty.

But cannot our common breeds be brought to this capacity? Yes, if you have a genius for conducting the business of breeding according to some model, or characteristic, and could live a hundred years, or could transmit your genius to some one that would continue the experiment to that period of time you could; but since we have so many good breeds that are thorough bred already to our hands, it would be wiser to adopt them than to commence experimenting for a new breed. There will be scope enough to exercise your talents in breeding, in keeping up the excellencies and characteristics of the breeds we have. They, being artificial innovations upon nature, would certainly deteriorate and go back in time, if great care was not taken to keep them up.—*Maine Farmer.*

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PREMIUMS AWARDED BY THE AGRICULTURAL SOCIETY OF THE COUNTY OF HUNTINGDON, No. 1, IN 1855.

GRAIN AND GREEN CROPS.

Wheat.

Alex. Graham, 25s; John Jackson, 20s; James Stott, 15s; William Robinson, 10s; Heman Derricks, 5s.

Barley.

William Williamson, 25s; Alex. Graham, 20s; Ira Fosburgh, 15s; George Durham, 10s; Edward Mussen 5s.

Hay.

George Durham, 25s; George Graham, 20s;

Eli Woodworth, 15s; Joseph Whitman, 10s; Alonzo Force, 5s.

Peas.

Thomas Dibb, 25s; Henry Stephenson, 20s; George Peacock, 15s; Thomas Dolby, 10s; John Force, 5s,

Corn.

George Lavalley, 25s; Freeman Nye, 20s; Roswell Canfield, 15s; John Smith, 10s; Francis Steads. 5s.

Oats.

Thomas Dolby, 25s; Charles Robinson, 20s: John Stott, 15s; William W. Fisher, 10s; Joseph Whitman, 5s.

Potatoes..

George Peacock, 25s; Rev. C. Morice, 20s; Robert Barry, 15s; Thos. W. Brisbin, 10s; Gilbert Weldon, 5s.

ROOT CROPS.

Carrots.

Roswell Canfield, 20s; John Odell & Son, 15s; Hiram W. Odell, 10s; Edward Braithwait, 5s.

Ruta Baga.

John Robinson, 2 s; Alexander Graham, 15s; Henry Winterbottom, 10s; Francis Cookman, 5s.

HORSES.

Stallions, Aged.

Henry Stephenson, 40s; Thomas Dibb, 30s; John Bone, 20s; Samuel Odell, 10s. Bonus awarded to Michael Kelly on an aged Stallion, 30s.

Three Year Old Stallions.

No award, 20s; Ira Wilson, 15s; James Stott, 10s; Jacques Larivierre, 5s; Bonus awarded to Diall, 2 s.

Two Year Old Stallions.

John Bone, 20s; Charles Robinson, 15s; David Fosburgh, 10s; Medard Dukette, 5s.

Brood Mares and Colts.

John Bone, 40s; Francis Cookman, 35s; Gilbert Weldon, 30s; Robert Quest, 25s; Thomas Cookman, 20s; Walter Peters, 15s; Henry Stephenson, 10s; Thos. Hewson, Sen., 5s.

Three Year Old Fillies.

David Barker, 25s; Aaron Miller, 20s; Horatio French, 15s; Francis Cookman, 10s;

Two Year Old Fillies.

Freeman Nye, 20s; Thomas W. Brisbin, 15s; John Barrowdale, 10s; Sixte Coupal 5s.

Yearling Colts.

Henry Winterbottom, 20s: Henry Stephenson, 15s; Geo. Woodworth, 10s; F. Nye, 5s.

Yearling Fillies.

Sixte Coupal, 20s; Timothy Force, 15s; William Robinson, 10s, Charles Robinson, 5s.

Three Year Old Gelding Colts.

George Durham, 15s; Robert Starker, 10s; Ira Fosburgh, 5s.

Two Year Old Gelding Colts.

William Williamson, 15s; Barney Donnely, 10s; George Woodworth, 5s.

Pair Matched Horses in Harness.

John Remington, 30s; Ira Fosburgh, 25s; John V. B. Hoyle, 20s; Freeman Nye, 15s.

NEAT CATTLE.

Bulls, Aged.

Henry Winterbottom, 30s; Henry Barrowdale, 25s; George Lavalley, 20s; Freeman Nye, 15s

Two Year Old Bulls.

Jacques Larivierre, 30s; Freeman Nye, 25s; William Williamson, 20s; Richard Smith 15s.

One Year Old Bulls.

Freeman Nye, 20s; Robert Outhet, 15s; William Robinson, 10s; Gilbert Weldon, 5s.

Milch Cows.

Maurice Lavalley, 35s; Freeman Nye, 30s; William Robinson, 25s; John Odell & Son, 20s; John Robinson, 15s; Charles Robinson, 10s; Edward Mussen, 5s.

Two Year Old Heifers.

John Robinson, 20s; William Williamson, 15s; Freeman Nye, 10s; Chas. Robinson, 5s.

One Year Old Heifers.

Robert Outhet, 20s; Freeman Nye, 15s; Edward Mussen, 10s; Medard Dukette, 5s.

Yoke of Oxen in the Yoke.

John Radley, 20s; Timothy Hoyle, 15s; Alonzo Smith, 10s; Francis Cookman, 5s.

Best Lot of Fat Neat Stock.

Charles Robinson, 25s; Freeman Nye, 20s; Robert Outhet, 15s; John Cookman, 10s.

SHEEP.

Rams, Aged.

Charles Robinson, 25s; Henry Winterbottom, 20s; Edward Mussen, 15s; George Winterbottom, 10s.

One Shear Rams.

Charles Robinson, 25s; Daniel Robinson, 20s; George Winterbottom, 15s; Francis Cookman, 10s.

Ewes, Pen of Three, with their Lambs.

John Robinson, 25s; Henry Winterbottom, 20s; Charles Robinson, 15s; Robert Outhet, 10s; William W. Fisher, 5s.

One Shear Ewes, Pen of three.

George Winterbottom, 25s; John Robinson, 20s; Edward Mussen, 15s; Charles Robinson, 10s; Richard Dennison, 5s.

Buck Lambs.

Ralph Moore, 20s; Thomas Cordukes, 15s; Robert Outhet, 10s; Daniel Robinson, 5s.

SWINE.

Boars.

John Stott, 25s; George Lavalley, 20s; Edward Mussen, 15s; William Robinson, 10s.

Breeding Sows.

George Lavalley, 25s; Robert Outhet, 20s; Eli Woodworth, 15s; David Fosburgh, 10s.

BUTTER.

Edward Braithwait, 30s; Horatio French, 25s; George Lavalley, 20s; Alonzo Smith, 15s; William Scriver, 10s; Eli Woodworth, 5s.

CHEESE.

Walter Peters, 30s; Thomas W. Brisbin, 25s; Heman Derrick, 20s; Ira Wilson, 15s; Eli Woodworth, 10s; Roswell Canfield, 5s.

AWARDED AT THE SOCIETY'S PLOUGHING MATCH.

Senior Class.

William Graham, 25s; Robert Ward, 20s; Edward Scriver, 15s; George Durham, 10s; George C. Woodworth, 5s.

Junior Class.

Watson Outhet, 30s; Robert Stott, 25s; David Paine, 20s.

Bonus awarded to Robert Bestwick, 25s; and to Francis Stead 25s.

The Members of this Society, since its formation, have evinced a laudable system of improvements in every department. The Judges on growing crops, in their report, submitted the following: "We have great pleasure in stating that the general appearance of the crops is most promising, and we observe that a better system of agriculture is being introduced among the farmers generally, and we predict the most beneficial results therefrom." The Judges on the various classes of live stock, also report a marked improvement, especially in sheep, the introduction of imported stock by spirited individuals—the society also, having purchased an imported Leicester Ram, has given an impulse to improvement in that class of stock in which our Society is probably second to none in this Province, which may appear by reference to the prizes awarded at the Provincial Show at Montreal in 1853, and at Sherbrooke the present year.

THOS. GORDON,

Sec'y-Treas.

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A NEW FOOD AND A NEW DRINK.

Attention, as all men know, has of late years been anxiously turned towards the discovery of a plant capable, in whole or in part, of forming a substitute for the precarious potato-crop. Many have been suggested. The tuberous oxalis, the arracacha, the lesser celandine, and many more, have from time to time been brought into notice; but each in turn, when weighed in the balance of practical agriculture, has been found wanting.

The star of hope to which the eye of hungry Europe is now directed is an Oriental yam, which the combined labours of the "Allies" have suddenly brought forth from an inglorious obscurity of 6000 years. Like the East and West Indian yams already known, it belongs to the genus diosorea; but is very different from these in its specific characters. M. Deaisne's experiments lead to the conclusion that it would speedily become a plant of real agricultural importance in France; and Professor Lindley sees no reason—judging from its geographical distribution, and its affinity to our hedged-bryony, which it much resembles—why it should not suit our climate.

The plant has large perennial rhizomes or roots, the top-ends of which are as thick as the fist, and which taper downwards to the thickness of the finger, descending perpendicularly to the depth of a yard, if the soil is loose enough to allow them. The haulm is annual, as thick as a goose-quill, cylindrical, entwining from right to left, two yards in height, of a violet colour, with small whitish specks; and when not artificialy supported, it trails on the ground, rooting freely at the joints. In China, this plant has long been in extensive circulation, under the name of *Sain-Inn*; and M. Montigny, through whom it was introduced from Shanghae to Paris, reports it to be highly productive, and consumed as largely by the Chinese as the potato is by Europeans.

As yet, the applicability of the plant to Britain has not been practicably demonstrated; but the French horticulturists, who have been at much pains to inquire into its merits, have arrived at the following conclusions: 1. That in point of flavour and nutritive properties, it is equal to the potato, and in the opinion of Professor Decaisne, superior. 2. That the yield is greater, whilst its freedom from disease renders the crop more certain. 3. That it will grow upon sandy, and what are usually considered barren soils; and thus affords an excellent means of turning waste-land to profit. 4. That it can be propagated with facility. 5. That it may remain in the ground several years without degenerating, but, on the contrary, it increases in size, weight, and nutriment, "furnishing at all

seasons of the year an aliment within the reach of every one." 6. That when harvested, it may be preserved in cellars or sheds, without vegetating, for many months after the potato has become useless for food. 7. It requires a shorter time in cooking than the potato; ten minutes boiling being sufficient.

M. Decaisne, in detailing his experiments, observes: "If a new plant is to have a chance of becoming useful in rural economy, it must fulfil certain conditions, in the absence of which its cultivation cannot be profitable.... Now, the Chinese yam satisfies every one of these conditions. It has been domesticated from time immemorial; it is perfectly hardy in the climate of France; its root is bulky, rich in nutritive matter, eatable when raw, easily cooked either by boiling or roasting, and then having no other taste than that of flour (feculé). It is as much as ready-made bread as the potato, and is better than the batatas or sweet potato."

The system of cultivation recommended by Professor Lindley for Britain is the following:—namely—For propagation, the smallest roots are set apart, and pitted to keep them from frost. In the spring, they are taken out and planted in furrows, pretty near each other, in well-prepared ground. They soon sprout and form prostrated stems, which are made into cuttings as soon as they are six feet long. As soon as the cuttings are ready, a field is worked into ridges, along each of which is formed a small furrow, in which the pieces of the stem are laid down and covered with a little earth, the leaves being left bare. If rainy weather follows, the cuttings strike immediately; if dry, they must be watered until they do strike. In fifteen or twenty days, the roots begin to form, and at the same time lateral branches appear, which are carefully removed from time to time, to facilitate the swelling of the roots. In general, one plant produces two or three tubers (rhizomes), which are of a coffee-colour externally, but consist internally of a white, opaline, very friable, slightly milky, cellular mass, filled with flour, which softens and dries in cooking till it acquires a taste and quality of a potato, "for which it might be mistaken"—possibly in taste, certainly not in appearance.

So much for the new food; we turn now to the new drink. This it is proposed to produce in a circuitous way from a Chinese plant, known to botanists as the *Holcus saccharatus*, which was introduced into France a few years ago, and into England last year. Chemical analysis shews this plant as containing 18½ per cent of saccharine matter, being a higher proportion than in the case of beet. The sugar is obtained from the juice in the same way as that of the sugar-cane; but it appears that sometimes as much as a third of the total amount of sugar in the juice is not crystallisable, so that under certain circumstances the saccharine matter of the plant cannot be rendered wholly available in the sugar-manufactory. In fact, it is expected that in the actual produce of marketable sugar, the holcus can compete with beet only in the 44th and lower degrees of latitude.

How, then, is this plant to be made available as a British crop? It appears that, while the saccharine juice produced in cold countries is incapable of profitable conversion into sugar, it is, on the other hand, precisely in the most favourable condition for the distiller. To the difficulty of crystallisation is attributed the facility with which the juice enters into fermentation, and the large amount of alcohol it affords compared with the quantity of sugar directly indicated by the saccharometer. M. Vilmorin, who has carefully examined the capabilities of this crop, believing that it would be most advantageously cultivated for its alcoholic products, obtained results indicating a slightly higher production of sugar than beet, which, from 40,147 pounds of roots, yields 1 927 pounds of sugar per acre. But the difference in alcohol is more important, beet yielding 120 gallons only, while holcus gives 182 gallons—a difference of 62 gallons on the acre; and it is as a drink-plant, therefore, and not as a food-plant, that the *Holcus saccharatus*, must be accepted. Instead of standing up as a rival to beet, it will become a substitute, or rather a supplement, to the vine, which has of late years been so severely threatened with blight.

In France, the capabilities of the plant have been demonstrated. M. de Beauregard having fermented, by means of the refuse of grapes, a quantity of the juice of the holcus in his wine-vats, obtained an alcohol of excellent flavour, which he sent to the market at Marseille, where it realized the same price as the ordinary alcohols there exposed. Of all substitutes for the vine that have hitherto been tried, Dr. Turrell believes the holcus to be the best, producing an alcohol altogether superior to every other.

But the holcus has nobler aspirations, and is likely to minister substantially to our intellectual wants. It responds to the cry of rags, by a yield of four tons an acre of material for paper-making, after the juice has been extracted. Nor is this all. A writer in the *Gardeners' Chronicle* says: "Attention has been drawn to a novelty of the year, in the shape of a tall reedy grass, called *Holcus saccharatus*, of whose economical virtue I find that great expectations are raised ..... The Deccan sportsmen and officers use it largely, under the name of *jowaree*, in preference to the coarse grass or hay obtainable there, in feeding their hunters and chargers, which thrive well upon it; so much so, indeed, that when sent to the coast for racing purposes, a supply of it invariably accompanies them."

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STRUCTURE OF VEGETABLES—ORGANIC FUNCTIONS.

A plant consists, externally of, 1, root; 2, stem; 3, leaves; 4, fructification, or flower and fruit.

The root fixes the plant in the earth, serving the double purpose of holding it in place and position to receive nourishment, and also of absorbing from the earth those substances which are essential to its nourishment and vital action. The stem consists of pith, wood, and bark. The internal structure of the plant is composed of cellular tissue, woody fibre and a system of spiral tubes, which are each disseminated through the plant, and serve important purposes in the vegetable economy. The pith consists mostly of cellular tissue. This part of the plant sometimes constitutes nearly the whole stem, as in the cane and Indian corn. The path sometimes furnishes a very nutritious and agreeable diet, as is the case with the sago palm, whose pith is used by us for puddings, being the common sago of the shops. It is highly probable that the pith of our corn would make, if prepared aright, an article equally salubrious and pleasant for the table. The cellular tissue, the woody fibre and the spiral tubular system all serve for absorbing and transmitting the proper food of the plant and for respiration. This last function has been supposed to be performed by the spiral system, which, however, is considered to be disproved by the experiments of Darwin and Knight, which show these vessels to be the channels through which the sap is conveyed. Every part of a plant is covered with a cuticle or skin, like the bodies of animals. Beneath this is a cellular integument; and under this the bark and wood.

Though vegetables absorb water and the atmospheric gases at all points of their surface, it is particularly by their roots that they absorb it in greatest quantity. They are capable, however, of sustaining life by merely the absorption of their other parts. Some interesting experiments were made in Scotland many years ago on this point, which fully proved this fact. A tree was grafted on to two others, standing each side in contact, and after the connection by the grafts had become complete, the stem was sawed asunder, leaving no communication with the roots and the ground. It was connected, however, with the roots of the supporting trees. It lived and flourished as well as before. This experiment proves another fact more satisfactorily, that the vegetable structure is capable of transmitting the sap in either direction, which has also been proved by other experiments with colored liquids.

Water impregnated with many substances, and particularly with carbonic acid, is carried up by the roots into the stem, and by the spiral vessels conveyed to all parts of the plant. Or perhaps the carbonic acid is formed in the plant by the absorption of air in the upper portion of the plant and its mixture with the water absorbed by the roots. This composes the sap, and is carried to all parts of the vegetable, and lastly to the leaves, where it is transformed into the proper juice of the plant, and returned to all parts again. It is in this returning circulation, that the oils, rosins, gums, and odors of the plant are produced.—*New England Farmer.*

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OLD APPLE TREES.

Apple trees, when very aged, are generally hewn down and cast into the fire" as "worthless cumberers of the ground." The longevity, however, which is characteristic of this tree, prevents the necessity of extirpating it very often, and it is indeed, extremely questionable whether in most cases it might not be perpetuated, like the olive trees of Athens, and the celebrated mulberry at Stratford-on-Avon, till its duration should be computed by centuries, rather than by years. Of this longevity we have a very interesting illustration in the case of the apple tree planted by Peregrine White, in the town of Marshfield, in this State, and of which a drawing, said to be very accurate, was published not long since in this paper. Mr. White was the first-male child, of English parentage, born in New England, and died in Marshfield, in 1704, aged 83. The tree was planted probably about the year 1648, consequently is now *two hundred and four years old*, but still vigorous, and has produced "fruit every year without interruption" as far as the memory of the present owner—one of Mr. W.'s descendants of the fifth generation, extends.

In resuscitating old trees, or those which have become unfruitful from the combined

effects of age and disease, it is proper in the first place thoroughly to cleanse the bark, especially in the vicinity of the ground, for it is at that point that the borer commits his depredations, and there also many other insects seek and find their hybernacular, or winter quarters. If the bark is very rough, as is most commonly the case in trees that are verging to senility, it is well to obtain some appropriate instrument and remove it, taking care not to injure the alburnum, or to trespass upon the healthy parts of the bark beneath the scaly surface on the outside, which alone should be detached. This decortication must be performed with a nice hand, for although some orchardists advocate the entire denuding of the trunks of old trees, it is found that scarification is a most serious injury, especially where the system is weak and relaxed.

The coarse, mossy bark on the limbs should also be removed, and the whole washed and scrubbed vigorously with ashes and water till the surface assumes a smooth and fresh appearance. If there are any decayed places on the trunk, resulting from internal or external wounds, they should be cleansed, and the rotten matter removed, and the orifice filled with a composition of fresh cow dung, one part; clay, one part; leached house ashes, one part; and a little salt and plaster—the whole moistened with urine, and worked till it can be spread easily, and is sufficiently plastic to adhere to the place where it is applied. All old limbs should be removed by sawing; the stump must then be made perfectly smooth, and covered with a thin wafer of grafting cement. In no case should the amputation be at a distance from the point of junction, but as close thereto as the saw can be made to run.

As to the tops, it is better, perhaps, to remove a portion of the limbs, as the energy of the roots and trunk may not be adequate to secure the necessary support: but we would by no means advise the removal of many of the limbs, especially those of the larger size near the base of the top. By cutting out mostly the vertical shoots, and retaining the horizontal ones—thus giving the top a shape in some degree resembling an umbrella reversed, the sun-light will be let in, and new wood will be developed more rapidly and vigorously than if an opposite course of pruning should be adopted. As the new wood progresses, tho older limbs may be removed, till the top presents wholly a new growth.

Where there is a single tree, or there are a few trees valued for their particular location or kind of fruit, the roots should be laid bare for at least six feet from the trunk, by a careful removal of the soil to the depth of one foot. The excavation must then be filled in with the very best and richest description of garden loam, mixed with compost in which lime and wood ashes—leached or unleached—constitute a large share, and the surface covered with manure, the best that can be procured.

In this way, an old tree may be resuscitated, and if desirable, grafted with any variety of improved fruit, or left to produce its own, as the operator may see fit to direct. One thing against which we think too much cannot be said, is the practice—now quite prevalent—of plowing among orchards with as little care as in any common mowing field. It has been asserted by some that this is a benefit to the trees—that it causes them to send out more shoots, and increase the constitutional vigor and fecundity of the trees! Why it should do so is a question which no one, perhaps, can rationally resolve. It seems as natural to suppose that the wounding or abscision of the lateral roots, in the case of a standing and bearing fruit tree, should prove injurious as in that of a young tree which is being removed for the purpose of transplantation. The more roots in either case the better, we contend, and if orchards *are tilled*, let the soil be plowed lightly, and the operation of inverting the sward conducted with the greatest care. But before setting an orchard the ground should be throughly subsoiled, cultivated and manured.

November, if the weather is moderate, is as good a time, perhaps, as any month in the year for these operations.—*New England Farmer.*

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THE BASKET WILLOW.

Mr. C. N. Bement, in a communication in the *Country Gentleman*, says: The species most esteemed by basket makers is the *Salix Viminalis*, or European green Willow. It is of quick growth and shoots grow amazingly long, which characteristic renders it very useful for basket making. The leaves are long, and narrow, of a blueish green on the upper and hoary on the under surface. This is the variety I cultivated, and, of all others, is the best calculated for making baskets, and covering bottles. An acre of this, properly planted upon suitable soil will yield at the best calculation, from one and a half to two tons weight to the acre.

W. C. Haynes, in Hunt's *Merchant's Magazine*, says "From two acres the net proceeds, after paying all expenses were $333.75." In an article from Charles Downing, Esq., of Newburgh, N. Y., copied in the *New England Farmer*, he says, Willow will grow in any soil, and thrive in a great variety of soils, but gives its best returns only in such as are well suited to its habits. It is a lover of moisture, but does not tolerate standing water or soil sodden with, nearer than the one foot of the surface, during the growing season. Overflowing in winter is not objectionable, nor overflowing in summer, that soon passes off. A very deep, rich sandy loam, diluvial and alluvial, such as constitutes many bottoms, not so much elevated above the stream that winds through them, that by diving down in the previous soil, the roots cannot find moisture if kept clear of rampant weeds will give an astonishingly vigorous growth, yielding three or four tons per acre.—A low level bottom, from which a crop has just been removed if in the spring properly prepared and planted, would, on and after the second year, give a net percentage, and an investment that nothing else can approximate, and with a certainty that pertains to no other crop. A correspondent of the *New England Farmer*, who subscribes himself W., in commenting on the statement of a Hingham correspondent, who stated that he raised nearly nine tons to the acre, says, "The Osiers must have been weighed in a green state, and with the bark on them, as the growth of an acre which produces three tons of Osiers, in a fit state for market, (that is peeled, dried, and tied in small bundles,) is considered very satisfactory, and is more than an average crop. With no more labor in the cultivation than running a cultivator between the rows, two tons to two and a half tons can be raised and it is then very profitable."

As the amount which may reasonably be expected to the acre, determines very much the profitableness of the cultivation, I have quoted the above gentlemen and think we may make a safe calculation from their statements. In relation to Mr. Bement, who thought that from one and a half to two tons might be raised to the acre, he probably made his experiment on very poor land. His shoots, according to his own statement, growing only from three to five feet the second year. Whereas my willows, of the same variety, have grown from five to nine feet the second year, the two seasons I have tried it. And other plantations in the vicinity give equal indications of adaptedness of soil and climate, for the successful cultivation of the Basket Willow.

Mr. John Fleming, Jr., Esq., of Sherburn, Mass., an experienced cultivator and manufacturer of the Osier Willow, prefers good springy upland to any other soil, for a profitable plantation. I am confident that the moist rich soil of Vermont, so well adapted to rising large crops of grass, will, if well cultivated, produce large crops of the basket willow, whether bottom or upland. And if any one will visit my plantation of four acres, I think they will be satisfied that my prospests of success are equal on an average of what I have set forth in the foregoing, to say the least. And I would agree with Mr. Bement where he says, "From my own experience I am fully convinced that the Willows may be grown profitably, for less than fifty dollars per ton wei h'."

Mr. Fleming, in his address before the Norfolk County Society, for 1852, says, "The price of Willow ranges from $5 to $7 per hundred weight, for English, French, Dutch and German; and native grown Willows, raised from sets imported from England, sell at $2 more per hundred weight.

"From the best information I can obtain," says W. C. Haynes in Hunt's *Merchant's Magazine*, "there are from four to five millions of dollars worth of willows annually imported into this country from France and Germany. The price ranges from $100 to $130 per ton weight. The quantity may appear large, and yet it is not sufficient for the consumption.

In the above article I have not intended to give the mode of culture. For information on that subject I would refer the reader to Mr. G. J. Colby's Circular which I will forward, free of charge, to any one addressing me.

ERASTUS PARKER.

Waterbury, Vt., Oct. 25, 1855.

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TURNIPS AGAIN.—Mr. Logan has handed us the following statement, based upon actual measurement and weight, to show what his fields are capable of doing in the way of produce. To one acre English land sowed in Swedish turnips, the produce was per arpent 17 tons, 12 cwt. 1 qr. 18 lb, or per acre 21 tons, 2 cwt, 3 qrs, 14 lbs.

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INSTRUCTION IN AGRICULTURE.

In the kingdom of Prussia there are five Agricultural Colleges, and a sixth is about to be opened; in these are taught by both theory and practice, the highest branches of science connected with the culture and improvement of soil; of Agricultural schools of more elementary order, there are ten; there are also seven schools devoted to instruction in the culture of flax; two specially devoted to in-

struction in the management of meadow lands; one for instruction in the management of sheep; and there are also forty-five model farms, intended to serve in introducing better modes of agriculture; in all, seventy-one public establishments for agricultural education, not to mention others of kindred nature, or those private schools where the art and science of good farming are taught.

Prussia is a monarchy, with fifteen millions of people. New York is a republic, with three millions, and a territory, which, though not quite half as large, is rich and better situated, with means of transportation incomparably superior. Prussia has seventy-one public establishments to instruct her people in farming, the science of sciences, and art of arts. New York has not one; and the proposition to establish a single Agricultural College has again and again been voted down in her Legis ature. Ought so shameful a contrast to exist between that monarchy and this republic.—*Tribune.*

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COLLECT LEAVES FOR LITTER.

After the harvest is over, and before the snows cover the ground, a day or two spent by the farmer and his hands in collecting the fallen leaves of the forest will be productive of a good store of excellent litter, and the expenses amply repaid. A good collection of such materials is not always made in the fall by those who could do it easily. Indeed, this prudent foresight for litter with which to bed down cattle, horses, and other stock, during the winter, is not sufficiently practised among us. It not only ensures a great amount of comfort to your cattle, by giving them an easy and warm bed, but it saves, indirectly, much fodder, in consequence of the warmth thus obtained—cattle eating much less when they are kept warm and cleanly.

The leaf harvest, then, is one of importance to the farmer, if he will avail himself of it. A calm day or two spent in this business, with his boys and oxen, and hay-rack, will enable him to get together a large pile of these fallen leaves, and if stowed in a dry place, he will experience the good effects of them in the improved condition of his stock, compared with those which are suffered to lie down, and perhaps be *frozen* down in their own filth. The fertilizing material of leaves also adds essentially to the enriching qualities of the manure heap. Gardeners prize highly a compost made in part of decomposed leaves.

As the leaf harvest is the last harvest of the year, let it be attended to when its time comes.—*Maine Farmer.*

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SEEDS.

This is the season for the preservation of many of the seeds which are to start future crops, and too much care can scarcely be exercised in the selection and disposition of them. If we desire early and perfect crops, we must begin them with the best seeds, and these can only be obtained by careful discrimination and preservation. They should be kept from moist places, and on the other hand not so dry as to shrivel and nearly bake them. Every farmer and gardener should have his seed drawers, conveniently arranged, and always ready for use.

Seeds constitute the ultimate production of plants. In shape as well as specific qualities they are widely and wonderfully diversified. While some are enveloped in a soft pultaceous substance, which easily decays, and allows the green to expand, others are confined within involucres almost rivalling in their hardness and indistructibility, the most indurated mineral. In others we find the germinating principal protected only by a membranous integument, as in the case of the common garden pea. The seeds of some plants vegetate only in moist soil; others, of the aquatic sort, only in water; while a third class, require neither soil nor water, but develop in the open air. The latter are denominated aerial, to distinguish them from the terrene and aquatic orders, and are very numerous, but less so than the terrene or earthy kinds. The powers of prolification possessed by some species of vegetables, are truly astonishing. The thistle, for instance, produces an immense number of seeds, and these, owing to the villous or downy coating with which nature has endowed them, are so buoyant that they are commonly disseminated over vast extents of surface, broadcast, by the August winds. The same is true of the seeds of the dandelion, and many other weeds. The seeds of the locust, oak, walnut, chestnut, and other similar trees, are larger and more ponderous, and consequently are never diffused in this way; they require to be transported and planted by hand. The seed of the locust, is enveloped in a shell integument of such exceeding hardness, that it can only be made to germinate by the application of the most scrupulous care. Some seeds are found to be capable of resisting the organic action of the stomachs of birds, and are thus conveyed and voided by them, without experiencing any detriment therefrom. Plants indigenous to one section are thus frequently found in places far remote—on promontories and the distant islands of the sea. Water, also, furnishes to many a vehicle of transportation, as well as the feathery coats of birds of passage, and the hair of granivorous and carnivorous animals.

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TREE PLANTING.

We notice among the munificent bequests of Elliott Cressen, a legacy of $5,000 to be employed in planting trees in Philadelphia. There is something touching in this gift. It is fragrant of good taste and friendly feeling. It seems to express gratitude for the comforting shade of some old tree under which the weary philanthropist had meditated his schemes of usefulness; and of considerate interest for the health and pleasure of future generations, who are to people the city of his birth. And when monuments of marble and of bronze shall crumble, the broad arms of the elm and the oak shall stand out against the sky as the befitting memento of the liberality and the last of the tree-loving Philadelphian.

Every one should plant trees. No object is more beautiful than a spreading elm, or a lively evergreen; none more productive than the apple or the luscious pear. Half the labor bestowed on a single crop of potatoes, would originate an orchard, the product of which in a few years would be equal in value annually, to the potato crop, yet with but little labor beyond the harvesting. A fortnight's toil in the spring or autumn in transplanting choice fruit-trees to the roadside, or tastefully grouping them on the lawn, will ultimately add more to the value of the place than twice the time employed in building or fencing. For their own comfort, for the sake of their descendants, for the taste and improvement of the country, plant trees—let every body plant trees.

That bald, naked church, tasteless, treeless! Who will have compassion on the worshippers, and surround it with trees? That district school-house, bare and unsightly; who will interest the boys in planting and protecing shrubs and trees that will make it an attractive and beautiful spot? Those verdureless villages, with their houses thrust upon the street—who will distribute honey-suckles, and Virginia creepers and prairie roses, that they may be turned into civilized habitations?

There is a softening, humanizing influence in horticulture and tree-planting, that we could wish were more general. There is too much danger of the gross and sensual and selfish in our national character; and while our reliance must be on religious and educational influences to correct this tendency, we believe that good and only good would come of the love for trees and flowers, and the cultivation of both. It may be blessed in leading the heart up to the love of the Rose of Sharon and the garden of God.—*American Messenger.*

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TO THE EDITOR OF THE INQUIRER.

Sir.—The insertion of the following return of this year's crop, on a Farm belonging to a well known respectable gentleman of the soil, about 8 miles from this Town, on the Eastern bank of the Black River, will, I have no doubt, be interesting to your numerous readers. It will show that Farming *even* in second quality of land in this abused district, will not only support industrious Families comfortably, but as in the present honorable example, will pay on an average in spite of occasional casualties, such as from early frost, or unfavorable weather, which we unfortunately experienced during the last season.

	Bushels.	Price per Bushel,	Total Value
Wheat,	100	10s.	£50 0 0
Buck Wheat	200	4s. 6d	45 0 0
Oats	1600	2s.	160 0 0
Peas	160	7s. 6d	60 0 0
Hay	4000 bun.	40s. per 100	80 0 0
Butter	1600 lb, fresh	1s. 6d	75 0 0
			£470 0 0

W. A. R. G.

Three Rivers, 13th December, 1855.

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SCOURS IN CALVES.

This disease generally arises from too much milk being obtained from the cow, sometimes from some deleterious quality of the milk of the mother.

If occasioned by the first cause, change, by not allowing it to have much at first, but give it some caraway, cinnamon, or ginger tea, combined with some gentle astringent, such as a decoction of blackberry twigs, blackberry root, oak or hemlock bark. If the quality of the milk is the cause, change the food of the mother. If the calf is weaned, or is fed by hand, boil the milk a little, and combine it with common black tea, or instead of that, clover hay tea, and also cinnamon, ginger, or caraway seed. If the discharges are fetid, there is probably some inflammation, and danger of gangrene. Pulverized charcoal, or yeast, would be useful if mingled with the tea.—*Maine Farmer.*

CULTURE OF CRANBERRIES.

Mr. Editor:—Will you inform me through the columns of the *Farmer*, the best modes of cultivating cranberries, on a swamp where the turf is from 10 to 15 inches deep, and the water is drained two feet from the top of the turf. Would it be best to take off the turf and set the vines on the mud or muck? When is the best time for setting the vines, and how far apart should they be set? And is there anything that can be put on them to make them grow and bear well? H. W.

Nuson, 1855.

Remarks.—The following is the plan proposed by Mr. F. Trowbridge, of New Haven, Conn., and agrees pretty well with our own knowledge of the proper mode of cultivation:

"The soil best adapted, is such as will keep moist through the dry season; they have been raised on land high enough to produce corn and potatoes with a wet substratum under the soil, or a clay and loam. They will not succeed well on dry, sandy, or land liable to bake or become hard in dry weather—but they will produce an abundant crop on poor swampy land that will not produce any other valuable crop, or any wet land after being drained. Dry ground should be plowed and narrowed smooth; in a swamp where a plow will not work, the turf or bog may be peeled off or burnt to get the weeds and grass out. They may be set in fall and spring, as early as the ground will admit, until the middle of May. Moss, tan, or anything to retain the moisture, would be beneficial around the plant after transplanting; a little sand around the plant fall and spring, will tend to keep the weeds out.

Planted in drills as you plant strawberry, cabbage, and other plants, one and a half to two feet apart. At two feet apart each way, it will take 10,000 plants to the acre. Hoe them slightly at first, until the roots become clinched, and afterwards no other cultivation is needed, unless to keep out weeds and grass. The plants may be expected to run together and cover the whole ground in two or three years. They can be gathered with a crabberry rake made for the purpose, to be procured at the agricultural stores."

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JOHNSON'S FACTORY FOR THRASHING MILLS.

The premises previously occupied by the Montreal Car Company have been leased by Mr. Johnson, who was also the purchaser of a great portion of the machinery, and lumber of that establishment. To the previous buildings Mr. Johnson has added a Foundry, and to the machinery a number of valuable labour saving machines, and has established a Trashing Machine Factory upon a more extensive scale than has hitherto been known in Canada.

The machinery includes a Saw Mill for heavy timber, circular saw for ripping, butting, and tenanting; boring, morticing and double tenanting machines, drills for boring the cylinder and concave, cutting machine capable of dividing a bar of iron 6 inches wide and one and a half thick like a piece of cheese, punching machines, planers for wood and iron, lathes for the same, machines for screws and nuts. In fact every machine necesary for shaping wood or iron to the purpose for which it is required, driven by steam power, and leaving nothing to the workman but laying out, and putting together. It is intended to carry on in these premises the fabrication of every portion of the mills from first to last. There are employed at the present time sixty-six men, and when the buildings in course of erection are completed, it will require one hundred, whose wages will amount to about £10,000 a year besides the outlay for timber, iron, coal, &c. The factory will turn out about five hundred mills a year, and with some additions its work can be doubled.

Mr. Johnson was fortunate in acquiring a large stock of excellent seasoned lumber from the Car Company, and has thus been able to commence business with a good quantity of an article absolutely necessary, and not readily obtained. A number of mills are now in course of erection, and for quality of material, strength, and finish are the best specimens of the kind we have ever seen; and will by the character which they will establish for the manufacturer be the means of bringing the name of his factory favourably before the public.

One great advantage which is obtained by machine work is that every similar portion of the whole is identical; in case of accidents, it can be immediatly replaced, and goes at once to its place without fitting.

Mr. Johnson has expended a large sum in an enterprise, destined to be of importance to the city, lumber and labour, both native productions being the greatest element of outlay and we hope that he will reap from it that material benefit which he deserves.

Already orders are pouring in upon him, and although the factory is not yet complete, yet next week it will commence to turn out finished work.—*Commercial Advertiser.*

———:o:———

CORRESPONDENCE.

To the Editor of the Farmer's Journal.

VIRTUE ROADHEAD, *Nov.* 28, 1855.

SIR,—In looking over the October number of the *Farmer's Journal*, I perceive that the Judges who inspected the crops and awarded the prizes of the County of Montreal Agricultural Society, have made statements in their Report that are not correct, and, as I consider myself impeached thereby, not only in an agricultural, but also in a moral point of view, I trust you will be kind enough to allow me a small space to set them right, and to justify myself. In their remarks on my farm, they give me perhaps all the credit I deserve for good crops, and setting a good example to my neighbours, but here they turn round and accuse me with being out of the proper rotation, and an extraordinary mode of treatment of a field of Indian corn, (as the Journal has it, but the Montreal *Witness* and *Transcript* have another version of this, they say, an exhausting mode of treatment, if there was a heavy crop of corn.) I must confess, that to be out of a proper rotation, is a breach of a law of good husbandry, which I have never made without paying the penalty sooner or later, yet, in this case, I have great hopes that I shall escape with impunity. In all my experience I have never seen the crops of either grain or grass which immediately succeeded Indian corn, show the least indication of exhaustion of the soil, but quite the contrary, if the corn crop was a heavy one, the opinion of our Judges to the contrary notwithstanding. It will be hard to convince me, that what is good in practice is unsound in theory; I should say, get heavy crops of corn, no matter by what means, if rational, the heavier the better, both for the present and future. Their remarks on my *mismanagement*, I would never have noticed,—these could have been easily passed over. What pains me most, is that my neighbours and others who knew the truth of the matter, should be made to think I could be guilty of falsehood, in telling them (the Judges) that my corn was raised without manure. They must either have misunderstood me, or imagined that it was the case and said so. The truth is, every hill in the field had manure of some kind applied to it.

Now, Mr. Editor, if you will allow me, I will give only one reason for having departed from my ordinary rotation, which I believe every practical farmer who reads the Journal will accept as a good excuse for so doing. It is well known that the grass seeds sown in this locality in the spring of 1853 were nearly an entire failure. This was so evident in the autumn, that fearing a want of hay, I did not break up the whole of my old pasture, but left part of it, from which, in 1854 I cut a tolerable crop of hay. This part of the field was of course thrown out of the ordinary rotation, which, under other circumstances would have been oats.

The question now arose, what is the best method to bring it into its proper place again,—I think I hit upon it,—I took the hint from an American paper, which gave as a preventive of the potatoe rot, something like the following, "Plow deep, turn up a little of the yellow dirt, manure well, and when you have done all the rest, plant corn." The soil being too heavy to be sufficiently pulverized by one ploughing, I had it trenched with an American plough, first turning down the surface furrow two inches thick, followed by a Canadian plough, turning up a second furrow over the first six inches deep. This work was done in the fall, and when finished, had the appearance of a well summer fallowed field, requiring no labour in the spring but to smooth the surface with the common harrow, and mark off the rows, which was done with a light double mould board plough, with a guage upon it setting off the rows three feet apart in two directions at right angles. The manure and seed were dropped at the same time, exactly where the marks intersected each other, and slightly covered with a hoe. Between eight and nine cubic yards of manure was applied to the arpent, or about eight inches to each hill. Soon after the corn come up, I had a handful of unleached ashes put on each hill, about six bushels per arpent, and slightly hoed in. I do not ascribe the success of this crop to the manure but to the depth of mellow soil, that covered the decomposing sward beneath, preventing the escape of the gasses arising therefrom, but retaining and serving them out to the plants that stood over them, as their growth required. I have been led to adopt these views, from the fact, that although the manure used was of very different quality, the crop all over proved alike good, except where the neighbours fowls made a foray into it and pulled up about three-fourths of an arpent, which was planted a second time on the 11th of June,

twenty days after the first planting. This came up quickly and grew rapidly, but the ears were smaller and did not fully ripen. The culture of the crop during its growing was with a light grubber, and double mould board plow, the last time this implement passed through the rows, the soil raised by the mould-board was drawn a little to the roots of the corn with a hoe, leaving the hills as flat on the top as possible.

There may be very little in the above, and unworthy of a place in the Journal. I know, as regards many of your readers, it is only teaching Hannibal the art of war, but we are not all Hannibals. There are certain gentlemen in the country who take a deep interest in, and have done a great deal for the advancement of agriculture in Lower Canada, whom I would go considerably out of my way to oblige, who, having seen my crops before they were harvested, made the request that I should ascertain what is the amount of produce of my corn and carrot crops, and communicate the same. Now, that I have ascertained the exact amount of each of those crops, I shall close this paper with a statement thereof. The corn has yielded fifty-nine minots and three quarts per arpent,—this is equal to something over seventy-five bushels per acre; I sowed two kinds of carrots, the white Belgian and Long Red. As it is almost impossible to come to anything like certainty by measuring the roots, I have measured the land and weighed the crop: the white yielded twenty-two tons, two hundred weight and ninety-six pounds of clean roots per arpent. The red yielded fourteen tons fifteen hundred weight and sixty pounds per arpent, making a difference of seven tons seven hundred weight and thirty-six pounds in favour of the white. A number of the roots clean and without the tops when taken out of the ground weighed over four pounds each. I have left a few of them with Mr. George Sheppard, seedsman, from whom I procured the seed, both kinds grew on the same soil, had the same kind and quantity of manure, and in every other respect treated the same.

I am, &c., &c.

WILLIAM BOA.

MONTREAL MARKET PRICES.

Rates at which produce is purchased from the Farmers.

28th December, 1855.

Hay from 15 to $18 per 100 bundles.
Straw from 5 to $6. do.
Fresh Butter, per lb., from 1s 6d to 1s 8d.
Salt Butter, do from 1s 0½d to 1s 1d.
Country Cheese, from 6d to 8d.
Wheat, 10s to 11s.
Barley, 4s 9d to 5s.
Rye, 4s 6d to 5s.
Oats, from 2s to 2s 3d.
Yellow Indian Corn, from 5s 6d to 6s.
Indian Corn, 5s to 5s 3d, Ohio.
Buckwheat, from 4s 3d to 4s 6d.
Peas, from 4s 0d to 5s.
Beef, per 100 lbs, from 5 to $8.
Mess Pork, 9 to $10.
Mutton, per carcase, from 2¼ to $5.
Lamb, do none.
Veal, 2½ to $4½.
Eggs, from 1s to 1s 2d.

Notice to Farmers and Dealers in Grains.

$200 to be offered in Premiums for SEED GRAIN.

The DIRECTORS of the COUNTY OF MONTREAL AGRICULTURAL SOCIETY, with a view to afford to Farmers an opportunity of selecting SEED GRAIN, purpose holding a GRAIN MARKET in connection with the HORSE SHOW in the Spring, when the sum appropriated will be offered for the following viz.:—

3 premiums,	20	bushels.	Wheat.
3	do	20	do	Oats.
3	do	20	do	Barley.
3	do	20	do	Peas.
3	do	10	do	Beans.
3	do	5	do	Tares.
3	do	5	do	Timothy Seed.

The amount of Premiums and other details will hereafter be published.

By order,

JAS. SMITH,
Secry.-Tres

LOWER CANADA
Agricultural Implement Warehouse
AND
SEED STORE.

THE Subscriber begs to intimate, that he purposes opening an AGRICULTURAL IMPLEMENT WAREHOUSE, in the LARGE HALL over the ST. ANN'S MARKET, in this City, which he has leased from the City Corporation for this purpose.

He will keep constantly on hand an assortment of the best and most approved IMPLEMENTS of ENGLISH, CANADIAN and AMERICAN Manufacture, which he can with confidence recommend to his friends.

The Subscriber begs farther to intimate that, in connection with the Implements, he will have for Sale AGRICULTURAL SEEDS as well as FLOWER SEEDS of every description and variety.

The Seeds will be of the best description, clean, unmixed, and of the latest growth obtainable.

With this view, he has made arrangements with one of the first Houses in France, for Clover and other Seeds, which he hopes to receive about the 1st of January next.

An establishment of this description has been long wanted in Canada, and the Subscriber trusts to have such a supply of SEEDS and IMPLEMENTS as will ensure him the patronage of Agriculturists.

WM. EVANS, Junr.

Montreal, 1st Dec., 1855. 5 in.

NOTICE TO FARMERS.

THE MUTUAL FIRE INSURANCE COMPANY of the COUNTY OF MONTREAL insures the properties of farmers in Lower Canada, at 5s. for £100 currency, for 3 years, &c.

Apply at the office, *St. Sacrament Street*, Montreal; to the Agents in the Country; or to the undersigned Directors:—

Wm. Macdonald,	Esq.,	President, Lachine.
B. H. Le Moine,	"	Montreal
Edward Quin,	"	Longue Pointe.
F. M. Valois,	"	Pointe Claire.
John Dods,	"	Petite Cote.
G. G. Gaucher,	"	Ste. Genevieve.
Frs. Quenneville,	"	St. Laurent.
Joseph Laporte,	"	Pointe-aux-Trembles.

P. L. LE TOURNEUX,
Secretary and Treasurer.

Montreal, 1st July, 1854.

Bull Calves for Sale.

THE Subscriber offers for sale Five BULL CALVES of the best pedigrees.

RALPH WADE, Junr.

Cobourg, December, 1855. 3 p

JUST PUBLISHED, FOR 1856

THE ILLUSTRATED ANNUAL REGISTER of RURAL AFFAIRS and CULTIVATOR'S ALMANAC for 1856. 288 pages. Embellished with ONE HUNDRED AND FIFTY ENGRAVINGS. Price 1s 3d.

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Circular Flower Garden	1
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Cheese Presses	3
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Important to Agriculturists.
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THE YEAR BOOK of AGRICULTURE for 1855 and 1856, exhibiting the most important discoveries and improvements in Agricultural Mechanics, Chemistry, Botany, Geology, &c., illustrated with numerous Engravings by David A. Wells, A. M.

Price 7s 6d.

Philadelphia: CHILDS & PETERSON.
Montreal: HEW RAMSAY.

PRIZE LIST

FOR

1856.

Agricultural Association for Lower Canada.

AGRICULTURAL AND INDUSTRIAL EXHIBITION to take place at THREE RIVERS, on the 17th, 18th and 19th of SEPTEMBER, 1856.

Minister of Agriculture,

Hon. SIR ALLAN N. McNAB, M. P. P.

President of the Board of Agriculture,

MAJOR T. J. CAMPBELL, C. B.

President of the Agricultural Association,

B. FOSTER ROY, Esq., Compton.

Vice-Presidents of the Agricultural Association,

GEO WAINWRIGHT, Esq., of Silver Heights.

A. POLETTE, Esq., M. P. P., of Three Rivers.

WM. EVANS, Esq., Secretary-Treasurer of Board of Agriculture and Agricultural Association

GENERAL ARRANGEMENTS.

WEDNESDAY, 17th September.—Arrangement and Inspection of Stock, &c.

THURSDAY, 18th September.—Exhibition of Stock and Implements.

FRIDAY, 19th September.—Auction.

The Competition is open to Exhibitors from all parts of the Province. No Certificate of Entry can be received AFTER FIRST SEPTEMBER.

The Members of Agricultural Societies of the County wherein the Annual Exhibition may be held, shall be Members of the Association for that year, provided the Agricultural Societies of the said County shall devote their whole funds for the year, including the government grant, in aid of the Association.

The payment of 5s, and upwards constitutes a person a Member of the Agricultural Association of Lower Canada for one year, and two pounds ten shillings a Member for life, when given for that specific object, and not as a contribution to the Local Fund.

Members of the Association are admitted to the Show-yard without payment, *provided they make application to the Secretary for tickets of Admission* BEFORE THE 10TH OF SEPTEMBER. All others to pay 1s 3d each time of entrance. Children to pay half-price.

PART I.

AGRICULTURAL DEPARTMENT.

CLASS 1.—CATTLE.

Short-Horns or Durham.

SECTION.	£	s.	d.
1. Best aged Bull,	10	0	0
2nd do	6	0	0
3rd do	4	0	0
4th do Certificate of merit.			
2. Best 2 years old Bull,	7	10	0
2nd do	5	0	0
3rd do	3	0	0
4th do Certificate of merit.			
3. Best 1 year old Bull,	6	0	0
2nd do	4	0	0
3rd do	3	0	0
4th do Certificate of merit.			
4. Best Cow,	6	0	0
2nd do	4	0	0
3rd do	3	0	0
4th do Certificate of merit.			
5. Best 2 years old Heifer, in Milk or in Calf,	5	0	0
2nd do	3	0	0
3rd do	2	0	0
4th do Certificate of merit.			
6. Best 1 year old Heifer,	5	0	0
2nd do	3	0	0
3rd do	2	0	0
4th do Certificate of merit.			

Hereford Cattle.

7. Best aged Bull,	7	10	0
2nd do	4	0	0
3rd do Certificate of merit.			
8. Best 2 years old Bull,	5	0	0
2nd do	3	0	0
3rd do Certificate of merit.			
9. Best Cow,	4	0	0
2nd do	2	10	0
3rd do Certificate of merit.			
10. Best 2 year old Heifer, in Milk or in Calf,	3	0	0
2nd do	2	0	0
3rd do Certificate of merit.			

Devonshire Cattle.

11. Best Aged Bull,	7	10	0
2nd do	5	0	0
3rd do Certificate of merit.			
12. Best 2 year old Bull,	5	0	0
3nd do	3	0	0
3rd do Certificate of merit.			
13. Best Cow,	4	0	0
2nd do	2	10	0
3rd do Certificate of merit.			
14. Best 2 years old Heifer, in Milk or in Calf,	3	0	0
2nd do	2	0	0
3rd do Certificate of merit.			

Ayrshire.

15. Best aged Bull,	10	0	0
2nd do	6	0	0
3rd do	4	0	0
4th do Certificate of merit.			
16. Best 2 years old Bull,	7	10	0
2nd do	5	0	0
3rd do	3	0	0
4th do Certificate of merit.			
17. Best 1 year old Bull,	6	0	0
2nd do	4	0	0
3rd do	3	0	0
4th do Certificate of merit.			
18. Best Cow,	6	0	0
2nd do	4	0	0
3rd do	3	0	0
4th do	2	0	0
5th do Certificate of merit.			
19. Best 2 year old Heifer, in Milk or in Calf,	5	0	0
2nd do	3	0	0
3rd do	2	0	0
4th do Certificate of merit.			
20. Best 1 year old Heifer,	5	0	0
2nd do	3	0	0
3rd do	2	0	0
4th do Certificate of merit.			

Grade Cattle.

22. Best Cow,	5	0	0
2nd do	4	0	0
3rd do	3	0	0
4th do	2	0	0
5th do	1	15	0
6th do	1	10	0
7th do	1	5	0
8th do	1	0	0
9th do Certificate of merit.			
22. Best 2 years old Heifer, whether in Milk or in Calf,	4	0	0
2nd do	3	0	0
3rd do	2	10	0
4th do	2	0	0
5th do	1	10	0
6th do	1	5	0
7th do	1	0	0
8th do Certificate of merit.			

Canadian Breed.

23. Best aged Bull,	5	0	0
2nd do	3	0	0
3rd do Certificate of merit.			
24. Best 2 years old Bull,	3	0	0
2nd do	2	0	0
3rd do Certificate of merit.			
25. Best 1 year old Bull,	3	0	0
2nd do	2	0	0
3rd do Certificate of merit.			

26. Best Cow, . . 4 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . . 1 10 0
5th do . Certificate of merit.
27. Best 2 years old Heifer, in Milk or in Calf, . . 3 0 0
2nd do . . 2 10 0
3rd do . . 2 0 0
4th do . Certificate of merit.
28. Best 1 year old Heifer, 2 0 0
2nd do . . 1 15 0
3rd do . . 1 10 0
4th do . Certificate of merit.

Fat Cattle.

29. Best Ox or Steer, . 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
30. Best Cow or Heifer, . 3 0 0
2nd do . . 2 0 0
3rd do . . 1 0 0
4th do . Certificate of merit.

Working Oxen.

31. Best Yoke Working Oxen, 5 0 0
2nd do . . 2 15 0
3rd do . . 2 10 0
4th do . . 2 0 0
5th do . . 1 15 0
6th do . . 1 10 0
7th do . Certificate of merit.
32. Best Team of Oxen not less than 10 Yoke from one Township or Parish the property of any number of persons, . . 10 0 0

Steers.

33. Best pair of 3 years old Steers, 2 10 0
2nd do . . 2 0 0
3rd do . . 1 15 0
4th do . . 1 10 0
5th do . Certificate of merit.
34. Best pair of 2 years old Steers, 2 0 0
2nd do . . 1 15 0
3rd do . . 1 10 0
4th do . . 1 5 0
5th do . Certificate of merit.

Baron Longueuil's Prize.

Special Prize by Baron Longueuil, for the best Hereford Bull, not over 4 years, that has served Cows in Lower Canada the present year, . . £10 0 0

CLASS 2.—SHEEP.

Leicester or Longwool.

1. Best Ram 2 shears or over, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . . 1 0 0
5th do . Certificate of merit.
2. Best shearling Ram, . 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . . 1 0 0
5th do . Certificate of merit.
3. Best 3 aged Ewes, . 4 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . . 1 0 0
5th do . Certificate of merit.
4. Best 3 one shear Ewes, 4 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . . 1 0 0
5th do . Certificate of merit.

South-Down.

5. Best Ram 2 shears or over, 4 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.
6. Best shearling Ram, . 4 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.
7. Best three aged Ewes, 3 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.
8. Best three shearling Ewes, 3 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.

Merino and Saxon.

9. Best Ram 2 shears or over, 4 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.
10. Best shearling Ram, . 4 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.
11. Best three aged Ewes, 3 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.
12. Best three shearling Ewes, 3 0 0
2nd do . . 2 0 0
3rd do . Certificate of merit.

Fat Sheep.

13. Best three Fat Wethers, 3 0 0
2nd do . . 2 0 0
3rd do . . 1 0 0
4th do . Certificate of merit.
14. Best three Fat Ewes, 3 0 0
2nd do . . 2 0 0
3rd do . . 1 0 0
4th do . Certificate of merit.

CLASS 3.—SWINE.

Large Breed.

1. Best Boar, 1 year old or over, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
2. Best Sow, 1 year old and over, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
3. Best Boar, under 1 year old, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
4. Best Sow, under 1 year old, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.

Small Breed.

5. Best Boar, 1 year and over, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
6. Best Sow, 1 year old and over, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
7. Best Sow, under 1 year old, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
8. Best Sow, 1 year old and over, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.

CLASS 4.—HORSES.

Draught Horses.

1. Best heavy Draught Stallion, 10 0 0
2nd do . . 6 0 0
3rd do . . 5 0 0
4th do . Certificate of merit.
2. Best light Draught Stallion, 10 0 0
2nd do . . 6 0 0
3rd do . . 5 0 0
4th do . Certificate of merit.
3. Best Stallion, Canadian breed, 10 0 0
2nd do . . 6 0 0
3rd do . . 5 0 0
4th do . Certificate of merit.
4. Best 3 years old Stallion, of any breed, . 6 0 0
2nd do . . 4 0 0
3rd do . . 3 0 0
4th do . Certificate of merit.
5. Best 2 years old Stallion, 5 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
6. Best Brood Mare and Foal, 6 0 0
2nd do . . 5 0 0
3rd do . . 4 0 0
4th do . . 3 0 0
5th do . . 2 0 0
6th do . Certificate of merit.
7. Best 3 years old Filly, 4 0 0
2nd do . . 3 0 0
3rd do . . 2 0 0
4th do . Certificate of merit.
8. Best 2 years old Filly, 3 0 0
2nd do . . 2 0 0
3rd do . . 1 0 0
4th do . Certificate of merit.
9. Best Pair Draught Horses, 4 0 0
2nd do . . 2 10 0
3rd do . . 1 5 0
4th do . Certificate of merit.
10. Best Pair Matched Carriage Horses, . . 4 0 0
2nd do . . 2 10 0
3rd do . . 1 5 0
4th do . Certificate of merit.
11. Best Saddle Horse, . 2 10 0
2nd do . . 1 10 0
3rd do . . 1 0 0
4th do . Certificate of merit.

Thorough Bred Horses.

12. Best Stallion,		10	0	0
2nd	do	6	0	0
3rd	do	5	0	0
4th	do	Certificate of merit.		
13. Best 3 years old Stallion,		6	0	0
2nd	do	4	0	0
3rd	do	3	0	0
4th	do	Certificate of merit.		
14. Best Mare and Foal,		6	0	0
2nd	do	5	0	0
3rd	do	4	0	0
4th	do	Certificate of merit.		
15. Best 3 years old Filly,		4	0	0
2nd	do	3	0	0
3rd	do	2	0	0
4th	do	Certificate of merit.		

CLASS 5.—DAIRY PRODUCE.

1. Best Firkin of Butter, not less than 56 lbs.,	2	10	0
2nd do	2	5	0
3rd do	2	0	0
4th do	1	15	0
5th do	1	10	0
6th do	1	5	0
7th do	1	0	0
8th do	0	15	0
9th do	0	10	0
10th do	0	5	0
2. Best Cheese, not less than 30 pounds,	2	10	0
2nd do	2	5	0
3rd do	2	0	0
4th do	1	15	0
5th do	1	10	0
6th do	1	5	0
7th do	1	0	0
8th do	0	15	0
9th do	0	10	0
10th do	0	5	0

CLASS 6.—SUGAR FROM MAPLE OR BEET.

1. Best sample of Maple Sugar not less than 14 lbs.,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
2. Best sample of Sugar made from the Beet, not less than 14 lbs.,	1	10	0
2nd do	1	0	0
3rd do	0	10	0

CLASS 7.—FIELD PRODUCTIONS.

1. Best 4 minots Winter Wheat,	2	10	0
2nd do	1	15	0
3rd do	1	5	0
2. Best 4 minots Spring Wheat,	2	10	0
2nd do	1	15	0
3rd do	1	5	0
3. Best 4 minots Barley,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
4. Best 4 minots Rye,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
5. Best 4 minots Oats,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
6. Best 4 minots Peas,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
7. Best 4 minots of Marrow Fat Peas,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
8. Best 4 minots Horse Beans,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
9. Best 4 minots Indian Corn, in the car,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
10. Best 2 minots White Beans,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
11. Best 2 minots Timotly Seed,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
12. Best 2 minots Clover Seed,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
13. Best 2 minots Hemp Seed,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
14. Best 2 minots Flax Seed,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
15. Best 2 minots Mustard Seed,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
16. Best Swedish Turnip Seed, not less than 28lbs,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
17. Best Bale of Hops, not less than 112 lbs,	2	10	0
2nd do	2	0	0
3rd do	1	10	0
18. Best Bag of Potatoes, not less than 1½ minot,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
19. Best 12 Swedish Turnips,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
20. Best 12 white Globe Turnips,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
21. Best 12 yellow Aberdeen Turnips,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
22. Best 12 Orange Carrots,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
23. Best 12 white Belgian Carrots,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
24. Best 12 Mangold Wurtzel, (long red)	0	15	
2nd do	0	10	0
3rd do	0	5	0
25. Best 12 yellow Globe Mangold Wurtzel,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
26. Best 12 Sugar Beet,	0	15	0
2nd do	0	5	0
27. Best 12 Roots of Kohl Rabi, (in the Agricultural Department),	0	10	0
2nd do	0	5	0
28. Best 12 Parsnips,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
29. Best large Squash for cattle,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
30. Best Broom Corn Brush, 28 lbs.	1	0	0
2nd do	0	10	0
3rd do	0	5	0
31. Best sample of Dressed Flax, not less than 28lbs,	3	0	0
2nd do	2	0	0
3rd do	1	0	0
.32 Best sample of Hemp, 28lbs,	3	0	0
2nd do	2	0	0
3rd do	1	0	0

CLASS 8.—AGRICULTURAL IMPLEMENTS.

Open to all Countries.

1. Best Wooden Plough,	2	0	0
2nd do	1	10	0
3rd do	1	0	0
2. Best Iron Plough,	2	0	0
2nd do	1	10	0
3rd do	1	0	0
3. Best Subsoil Plough,	2	0	0
2nd do	1	10	0
3rd do	1	0	0
4. Best double Mould Board Plough,	2	0	0
2nd do	1	10	0
3rd do	1	0	0
5. Best pair of Harrows,	1	0	0
2nd do	0	15	0
3rd do	0	10	0
6. Best pair of Grass Seed Harrows,	1	0	0
2nd do	0	15	0
3rd do	0	10	0
7. Best Drill Harrow,	1	0	0
2nd do	0	15	0
3rd do	0	10	0
8. Best Cultivator,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
9. Best Fanning Mill,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
10. Best Horse-power Thrasher and Separator,	5	0	0
2nd do	2	0	0
3rd do	1	0	0

11. Best Grain Drill,	3	0	0
2nd do	2	0	0
3rd do	1	0	0
12. Best Bean Driller Barrow,	2	0	0
2nd do	1	5	0
3rd do	0	15	0
13. Best Turnip Drill,	2	0	0
2nd do	1	5	0
3rd do	0	15	0
14. Best Oil Cake Crusher,	2	0	0
2nd do	1	5	0
3rd do	0	15	0
15. Best Straw Cutter,	1	0	0
2nd do	0	15	0
3rd do	0	10	0
16. Best Root Slicer for stock,	1	10	0
2nd do	0	15	0
3rd do	0	10	0
17. Best Clover Machine,	2	0	0
2nd do	1	5	0
3rd do	0	10	0
18. Best Horse-Cart,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
19. Best Hay Cart,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
20. Best Metal Roller,	2	0	0
2nd do	1	0	0
21. Best Wooden Roller,	2	0	0
2nd do	1	0	0
22. Best Horse Rake,	1	10	0
2nd do	1	0	0
3rd do	0	10	0
23. Best Hand Rake,	1	0	0
2nd do	0	10	0
24. Best Reaping Machine,	5	0	0
2nd do	3	0	0
3rd do	2	0	0
25. Best Mowing Machine,	5	0	0
2nd do	3	0	0
3rd do	2	0	0
26. Best Stump Extractor,	2	10	0
2nd do	1	10	0
3rd do	1	0	0
27. Best Potatoe Digger,	1	0	0
2nd do	0	15	0
3rd do	0	10	0
28. Best Farm Gate,	0	15	0
2nd do	0	10	0
29. Best Machine for making Drain Tiles,	2	10	0
2nd do	1	10	0
30. Best half dozen Hay Forks,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
31. Best half dozen Manure Forks,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
32. Best half dozen Hay Rakes,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
33. Best half dozen Scythe Snaiths,	0	10	0
2nd do	0	5	0
34. Best Grain Cradle,	0	10	0
2nd do	0	5	0
35. Best Ox Yoke and Bows,	0	10	0
2nd do	0	5	0
36. Best dozen of Grain Shovels of Wood,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
37. Best half dozen Iron Spades,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
38. Best half dozen Iron Shvels,	0	15	0
2nd do	0	10	0
3rd do	0	5	0
39. Best half dozen Narrow Axes	0	15	0
2nd do	0	10	0
3rd do	0	5	0
40. Best Agricultural Implement not enumerated in the foregoing list,	1	10	0
2nd do	1	0	0
41. Best Horse Hoe,	1	10	0
2nd do	1	0	0
42. Best Cheese Press,	1	10	0
2nd do	1	0	0
43. Best Hand Churn,	1	10	0
2nd do	1	0	0
44. Best set of Dairy Utensils,	2	10	0
45. Best Potatoe Harrow for harrowing down Drills,	1	0	0
2nd do	0	15	0
3rd do	0	10	0
46. Best collection of Agricultural Implements exhibited by manufacturer,	5	0	0

CLASS 9.—FOREIGN STOCK.

1. Best Durham Bull, not over 5 years old, Certificate and	2	10	0
2nd do	2	0	0
2. Best Durham Cow, Certificate and	1	10	0
2nd do	1	0	0
3. Best Ayrshire Bull, not over 5 years old, Certificate and	2	10	0
2nd do	2	0	0
4. Best Ayrshire Cow, Certificate and	1	10	0
2nd do	1	0	0
5. Best Hereford Bull, not over 5 years old, Certificate and	2	10	0
2nd do	2	0	0
6. Best Devon Bull, not over 5 years old, Certificate and	2	10	0
2nd do	2	0	0
7. Best Devon Cow, Certificate and	1	10	0
2nd do	1	0	0
8. Best Stallion for Agricultural Purposes, Certificate and	3	0	0
2nd do	2	10	0
9. Best Thorough Bred Stallion, Certificate and	3	0	0
2nd do	2	10	0
10. Best Leicester Ram, Certificate and	1	10	0
2nd do	1	0	0
11. Best 3 Leicester Ewes, Certificate and	1	10	0
2nd do	1	0	0
12. Best Southdown Ram, Certificate and	1	10	0
2nd do	1	0	0
13. Best 3 Southdown Ewes, Certificate and	1	10	0
2nd do	1	0	0
14. Best Merino or Saxon Ram, Certificate and	1	10	0
2nd do	1	0	0
15. Best 3 Merino or Saxon Ewes, Certificate and	1	10	0
2nd do	1	0	0
16. Best Boar, Certificate and	1	10	0
2nd do	1	0	0
17. Best Breeding Sow, Certificate and	1	10	0
2nd do do	1	0	0

CLASS 10.—POULTRY AND SINGING BIRDS.

1. The best Trio of Asiatic Poultry	1	5	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
2. The best Trio of Black Spanish	1	5	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
3. The best Trio of Dorkings	1	5	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
4. The best Trio of Golden Polands	0	15	0
2nd do	0	5	0
3rd do Certificate of merit			
5. The best Trio of Silver Polands	0	15	0
2nd do	0	5	0
3rd do Certificate of merit			
6. The best Trio of Black or White Polands	0	15	0
2nd do	0	5	0
3rd do Certificate of merit			
7. The best pair of Muscovy Ducks	0	15	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
8. The best pair of Ducks	0	15	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
9. The best Pair of Bremen Geese	0	15	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
10. The best pair Chinese Geese	0	15	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			
Turkeys.			
11. The best pair of Turkeys	0	15	0
2nd do	0	10	0
3rd do	0	5	0
4th do Certificate of merit			

Pigeons.

12. The best pair of Pouters	0	5	0
13. The best pair of Carriers	0	5	0
14. The best pair of Fantails	0	5	0
15. The best pair of Tumblers	0	5	0
16. The best collection of Fancy Pigeons . .	0	5	0
2nd do Certificate of merit			
17. The best collection of Lop-Eared Rabbits .	0	5	0
2nd do Certificate of merit			
18. The best Parrot .	0	5	0
2nd do Certificate of merit			

Singing-Birds.

19. The best pair of Long Breed Canaries . .	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
20. The best Cock Canary	0	5	0
2nd do . .	0	2	6
3rd do Certificate of merit			
21. The best pair Green Canaries	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
22. The best collection of Canaries . .	0	5	0
2nd do . .	0	2	6
3rd do Certificate of merit			
23. The best English Bluebird	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
24. The best Linnet .	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
25. The best Thrush .	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
26. The best Goldfinch .	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
27. The best Skylark .	0	10	0
2nd do . .	0	5	0
3rd do Certificate of merit			
28. Best Mule Goldfinch	0	5	0
29. The best Mule Linnet	0	5	0
30. The best collection of Canadian Birds .	0	5	0
2nd do Certificate of merit			

SPECIAL PRIZES.

British American Land Company's Prizes for 1856.

For the best 12 minots of Wheat, grown in Lower Canada 12 10 0

For the best 10 minots of Peas, grown in Lower Canada, 7 10 0

For the best 10 minots of Oats, grown in Lower Canada, 5 0 0

The last three prizes to be awarded only to the actual growers of the Wheat, Peas, and Oats. The grain to be given up to, and become the property of the British American Land Company.

Entries to be specially made for the above prizes, in the same manner as for prizes offered by the Association.

GENERAL REGULATIONS.

1. Members of the Association may exhibit free of entry-money two lots, under any section.
2. Members shall pay on each lot exceeding two in one section, and non-members on all lots 1s 3d.
3. Stock must be the property and in possession of the Exhibitor from the date of the Certificate, (as to which see below.) No entry of thorough bred Cattle or Horses will be received unless the pedigree be stated in the Certificate.
4. Cows must have produced in 1856, or be in calf at the time of the Show.
5. Evidence may be required that Stallions and Bulls have had produce.
6. Aged Ewes must rear lambs in 1856.
7. The Premiums awarded will be paid on and after the 10th October. Premiums not applied for by 31st December will be forfeited.
8. Any deception on the part of a Competitor will disqualify him.
9. An animal which has already gained a First Premium at a Provincial Exhibition, cannot again receive one in the same class, but it may be awarded a Certificate, if it be deemed worthy of the First Prize, but not otherwise.
10. No person can take two prizes in one Section in Classes 5, 6, 7, and 8.
11. Stock which cannot be shown in any competing class may be exhibited as extra Stock, and the Judges may, if they think them worthy, recommend them for prizes.
12. In all cases where any difficulty may arise in regard to Competition, Awarding Premiums, or upon any other subject connected with the Exhibition, the Council and Officers of the Association shall decide, and their decision shall be final. The Judges will meet at the Secretary's Office, on the Ground, on Wednesday morning, at 9 o'clock precisely, to make arrangements for entering upon their duties at once. Judges are expected to report themselves on arrival, at the Secretary's Office, on the ground.
13. Every animal and article will be at the risk of the owners.
14. Judges must in all cases assign their reasons for recommending extra prizes.
15. All entries for Carrots, Parsnips, Turnips, Mangold Wurtzel, and Khol-Rabi, in the Agricultural Department, must be accompanied by a certificate from the Secretary of the Agricultural Society of the County in which they are grown that they are of field culture.
16. The Public will not be admitted to the ground till the morning of Thursday, the 18th Sept., when the gates will be opened at 9 o'clock.
17. Nothing to be removed from the ground until 6 P. M. on the evening of Friday, the 19th Sept.

Certificate of Entry.

1. Each lot must be intimated by a Certificate of Entry, printed forms of which may be had on application to the Secretary, at the office of the Association, in Montreal, and from the Agent of the Provincial Association at
2. All Entries must be completed and lodged with the Secretary not later than the 1st of September.
3. No Certificate of Entry will be received without the entrance money.
4. Admission Orders to the Show-Yard will be given when the Certificates of Entry are lodged.

Placing and Judging Implements and Industrial Products.

1. The Show-Ground will be open for the reception of Implements and Industrial Products on Tuesday, 16th of September, and all articles must be placed at 10 o'clock on Wednesday, the 17th. No article will be admitted without an Admission Order, and the difierent articles must be placed in their respective Sections, according to the classification in the Prize List.
2. A separate space will be reserved for Exhibitors who are desirous of showing a general collection. A moderate charge will be made according to the ground required, the extent of which must be intimated to the Secretary before the 1st of September. No Exhibitor will be entitled to this privilege who is not a Competitor.
3. The necessary means to test Machines must be provided by Exhibitors.
4. The Judges will commence their inspection at 12 o'clock, on the 17th of September, (Wednesday.)
5. A trial of Implements will take place during the afternoon of Wednesday the 17th.
6. All articles entered must remain on the ground until the evening of Friday the 19th.

Placing and Judging Stock.

1. Stock must be brought to the Show-Ground between 6 and 10 o'clock, on Wednesday (17th) morning. No lot will be admitted without an Admission Order. At 10 o'clock the gates will be closed and the ground cleared of all persons except the Judges.
2. One servant will be admitted with each lot, and must remain strictly in charge of it during the Show.
3. No Neat Cattle will be allowed to enter the Show Ground unless secured in a proper manner by either chain, strap, or cord.
4. Bulls must be secured by a ring or screw in the nose with chain or rope attached.
5. The competing Stock will be distingnished by numbers, and the owners' name must not be mentioned till the premiums are awarded.
6. The Judges will commence their inspection at 12 o'clock. They will decide without inquiry as to names of parties or places, and with reference merely to the numbers which distinguish the animals. They will have regard to the symmetry, early maturity, purity of blood, size, and general qualities, characteristic of the different breeds.
7. In no case shall a premium be awarded unless the Judges deem the animal to possess sufficient merit, more especially if there be only one lot in the section.
8. A Superintendent will attend each section of the Judges. It will be his duty to see that no obstruction is offered to them, to communicate between them

and the Secretary, to complete their Reports and to ticket the Prize Animals. None of the Tickets so placed shall be removed. The Ground will be open to the public at 9 o'clock, on Thursday morning, 18th.

IMPORTED STOCK.

With the view of encouraging largely the importation of improved stock, the exhibitor of any male animal imported into this province from Europe since the last exhibition, which shall take the first prize in any of the above classes, will be paid three times the amount of the premium offered in the list; the exhibitor of any female animal imported from Europe within the same time taking the first prize will be paid double the amount offered: the exhibitor of any male animal imported into the Province from any part of America within the same time taking the first prize will be paid double the amount of the prize offered; and of any female animal imported within the same time, and taking the first prize, one half the amount of prize offered, in addition to that in the list. Such animal to be the bona fide property of persons residing in Lower Canada.

PART II.

INDUSTRIAL DEPARTMENT.

CLASS I.

Raw Materials employed in Manufactures or the Arts, (exclusive of any such substance included in the Agricultural Division.)

SECTION.

1. Best collection of Specimens of Stone, Slate, or other mineral Substances, used in Building,	2	0	0
2nd do	1	0	0
2. Best Specimens of Stone, suitable for Sculpture, or other Ornamental purposes,	1	5	0
2nd do	0	10	0
3. Best Specimen of Lithographic Stone,	0	10	0
2nd do	0	5	0
4. Best Specimen of any Mineral Substance available for use in Manufactures, the Arts, &c., (not being specified above,)	1	5	0
2nd do	0	10	0
3rd do	0	5	0

N. B.—Each specimen must be properly designated, described, and *localized*, without which it will not be admitted.

Engineering, Architectural and Building Contrivances and Appliances, including Models, Plans, Designs and Descriptions of the same.

5. Best model of Apparatus for moving Buildings	1	5	0
2nd do	0	10	0
6. Best Plan of a Country Residence	1	0	0
7. Best specimens of Machine Made Doors or Blinds	1	5	0
2nd do (not by the same manufacturer)	0	15	0
8. Best specimen of Hand Made Doors, Windows or Blinds	1	0	0
2nd do	0	10	0
9. Best bundle of Shingles, sawed or split,	0	10	0
2nd do	0	5	0
10. Best specimen of Ornamental Wrought Metal for Architectural purposes	1	10	0
2nd do	0	15	0
11. Best specimen of Ornamental Metal Casting for Architectural purposes	1	0	0
2nd do	0	10	0
12. Best assortment of Window Glass	1	0	0
2nd do	0	10	0
13. Best specimen of Ornamental Earthenware (or Terra Cotta) for Architectural purposes	1	0	0
2nd do	0	10	0
14. Best samples of Drain or Water Pipes,	1	5	0
15. Best samples of Drain Tiles or Bricks	0	15	0
16. Best samples of Flooring Tiles or Bricks	1	5	0
17. Best sample of Bricks (for building)	1	5	0
18. Best 12 samples Roofing Slate,	1	0	0

Manufactures in Metal and General Hardware.

19. Best Parlour or other Box Stove or Model of Original Design	1	0	0
2nd do	0	10	0
20. Best Cooking Stove with Utensils	1	5	0
2nd do	0	15	0
21. Best collection of Molden Casting in Iron	1	0	0
2nd do	0	10	0
22. Best Coal Grate	1	0	0
2nd do	0	10	0
23. Best Iron Bedstead,	1	0	0
2nd do	0	10	0
24. Best specimen of Iron Furniture of any other description	1	0	0
25. Best specimen of Ornamental Casting	1	0	0
26. Best specimen of Ornamental Wrought Metal	1	5	0
2nd do	0	10	0
27. Best Specimen of Whitesmith work,	1	0	0
2nd do	0	10	0
28. Best specimen of Copper or Tinsmith work	1	0	0
29. Best Specimen of Cut Nails	0	10	0
2nd do	0	5	0
30. Best collection of Spades or Shovels	1	0	0
2nd do	0	10	0
31. Best Iron Safe	1	0	0
2nd do	0	10	0
32. Best specimen of Wire Work	1	0	0
2nd do	0	10	0
33. Best specimen of Marbleized Iron	1	0	0

Manufactures in Glass and Earthenware.

34. Best specimen of Glass Manufacture (not yet specified)	0	10	0
2nd do	0	5	0
35. Best collection of Pottery,	1	0	0
2nd do	0	15	0
36. Best single article of Ornamental Pottery,	0	10	0
2nd do	0	5	0
37. Best single article Stoneware	0	10	0
2nd do	0	5	0

CLASS II.

Machinery, Implements and Tools for Manufacturing, Artistic, or other Industrial purposes (exclusive of Agricultural or Horticultural Implements) Labour saving Machinery and Engines, Engine-tools and Implements, designed for manufacturing purposes.

SECTION.

1. Best Sewing Machine,	1	5	0
2nd do	0	10	0
2. Best Hand Loom,	1	0	0
3. Best Spinning Wheel,	0	10	0
4. Best Portable Forge and Furnace,	1	0	0
5. Best Blacksmith's Bellows,	0	10	0
6. Best Turning Lathe (1st as to improved construction, and 2nd., as to Workmanship),	1	0	0
2nd do	0	10	0
7. Best Slide Rest,	0	10	0
8. Best Universal Chuck,	0	10	0

Machines and Contrivances, or Models thereof, for direct use.

9. Best 4 Wheeled Carriage for 2 horses	1	10	0
2nd do	1	0	0
10. Best do do, one horse	1	5	0
2nd do	0	15	0
11. Best 2 Wheeled do	1	0	0
2nd do	0	10	0
12. Best Platform Scale, for heavy weight	1	5	0
13. Best Counter do	1	0	0
2nd do	0	10	0
14. Best Washing Machine,	0	10	0

Edge Tools, and Mechanic's Tools, and Furniture.

15. Best collection of Edge Tools	1	10	0
2nd do	0	15	0
3rd do	0	10	0

16. Best Single set of Tools for Carpenters, Coopers, Cabinet Makers, Turners, or other distinct trade (for each set), . . 1 0 0
2nd do . . 0 10 0
17. Best collection of Planes, 0 10 0
2nd do . . 0 5 0
18. Best set of Augers, . 0 5 0
19. Best twelve sheets Emery, Sand and Glass paper, 0 5 0
20. Best Stock and Dies, with Taps, for cutting Metal Screws, . . 0 10 0
21. Best set of Boxes and Taps, for cutting Wood screws, 0 10 0

Manufactures in Wood, &c., (comprising Carvers', Cabinetmakers', Carpenters', Joiners', and Farmers' Works, Picture frames.) &c., &c.

22. Best display of Domestic Furniture . . 2 10 0
2nd do . . 1 5 0
23. Best single article of Cabinetmakers' Work, (not included above) . . 1 0 0
2nd do . . 0 10 0
24. Best specimen of Carpenters' and Joiners' Work, 1 0 0
2nd do . . 0 10 0
25. Best specimen of Turning in Wood . . . 1 0 0
2nd do . . 0 10 0
3rd do . . 0 5 0
26. Best specimen of Ornamental Wood Carving . 1 0 0
2nd do . . 0 10 0
27. Best collection of Picture Frames, . . 1 0 0
2nd do . . 0 10 0
28. Best Single Specimen by a different Exhibitor . 0 5 0
29. Best display of Coopers' Work . . . 1 0 0
2nd do . . 0 10 0
30. Best single article of do 0 5 0

Animal Substances used in the Arts or Manufactures.

31. Best collection of Native Furs, (not manufactured,) 1 0 0
2nd do . . 0 10 0
32. Best specimen of Sole Leather . . . 0 10 0
2nd do . . 0 5 0
33. Best specimen of Upper Leather, . . 0 10 0
2nd do . . 0 5 0
34. Best six Calf Skins dressed, 0 10 0
35. Best six Sheep or Lamb Skins, dressed . 0 10 0
36. Best specimen of Patent Leather, . . 0 10 0
2nd do . . 0 5 0
37. Best specimen of Harness Leather, . . 0 10 0
38. Best do Carriage top do 0 10 0
39. Best do Deer Skin, dressed, 0 10 0
2nd do . . 0 5 0
40. Best Specimen of Porpoise Leather, . . 0 10 0

Manufactures in Leather, Furs, Hairs, Feathers, or other Animal Substances not otherwise specified.

41. Best set Double Harness, 1 5 0
2nd do do 0 15 0
42. Best set Single do 1 0 0
2nd do do 0 10 0
43. Best Saddle and Bridle, 1 0 0
2nd do . . 0 10 0
44. Best Side Saddle, . 0 15 0
45. Best collection of Whips or Whip Thongs, . 0 15 0
2nd do . . 0 5 0
46. Best Travelling Trunk, 1 0 0
47. Best Display of Boots and Shoes . . . 1 0 0
48. Best single specimen, (or pair) Boot-maker's Work 1 0 0 / 0 10 0
49. Best pair of Indian made Moccassins, (plain) 0 10 0
50. Best collection of Manufactured Furs, . . 1 5 0
2nd do . . 0 15 0
51. Best single specimen do do 0 10 0
2nd do do do 0 5 0
52. Best Beaver or Imitation Beaver Hat, . . 0 10 0
2nd do do do 0 5 0

CLASS III.

Various Industrial Products and Manufactures, Chemically or otherwise Compounded or Prepared Substances or Materials employed in Manufactures or the Arts.

1. Best Collection of Animal or other Oils, or Extracts suitable for Manufacturing or other Industrial purposes . . . 1 0 0
2nd do . . 0 15 0
2. Best single specimen of do 0 10 0
2nd do . . 0 5 0
3. Best sample Hard Soap 0 5 0
4. Best sample Fancy Soap 0 5 0
5. Best sample Composition Candles . . . 0 5 0
6. Best sample Tallow Candles 0 5 0
7. Best sample of Starch 0 5 0
8. Best specimen of Isinglass, Glue, &c., (each kind) 0 5 0

Manufactures of Silk, Cotton, Wool, Flax, Hemp, &c., also mixed Fabrics.

9. Best specimen of Factory made Cotton Cloth 1 0 0
2nd do . . 0 10 0
10. Best specimen of House-Made Cloth . 0 10 0
2nd do . . 0 5 0
11. Best specimen of Machine-Knitted Cotton Goods 1 0 0
2nd do . . 0 10 0
12. Best specimen of Hand-Knitting in Cotton (plain) 1 0 0
2nd do . . 0 10 0
13. Best piece of Broad Cloth from Canadian Wool 1 5 0
2nd do . . 0 15 0
14. Best piece of Woolen of any description Factory made from do . . 1 5 0
2nd do . . 0 10 0
15. Best do do Hand Loom do 0 15 0
2nd do . . 0 5 0
16. Best piece Woolen Flannel, Factory made do . 1 0 0
2nd do . . 0 10 0
17. Best piece do not Factory-Made do . . 0 15 0
2nd do . . 0 10 0
18. Best pair Woollen Blankets, Factory-Made, do 1 5 0
2nd do . . 0 15 0
19. Best do do not Factory-Made, do . . 0 10 0
2nd do . . 0 5 0
20. Best specimen of Machine-Knitted Goods, do 1 0 0
2nd do . . 0 10 0
21. Best specimen of Hand-Knitted Woollen Goods, do 0 15 0
2nd do . . 0 5 0
22. Best specimen of Linen Cloth 1 0 0
2nd do . . 0 10 0
3rd do . . 0 5 0
23. Best single specimen of Manufactured Hemp or Flax 0 10 0
2nd do . . 0 5 0

N.B.—The foregoing to be of Hemp or Flax of Canadian growth only.

24. Best specimen of Mixed Fabric of any description 1 0 0
2nd do . . 0 10 0
3rd do . . 0 5 0

Embroidering and Fancy other Needle-Work, &c.

25. Best specimen of Embroidering in Worsted . 1 0 0
2nd do . . 0 10 0
3rd do . . 0 5 0
26. Best specimen of Embroidering in Silk . 0 15 0
2nd do . . 0 5 0
27. Best specimen of Embroidery in Muslin . . 0 10 0
2nd do . . 0 5 0
28. Best specimen of Embroidery in Porcupine Quills, or other substances, not specified . . 0 15 0
2nd do . . 0 10 0
3rd do . . 0 5 0
29. Best specimen of Crochet Work . . 0 15 0
2nd do . . 0 10 0
3rd do . . 0 5 0
30. Best specimen of Knitting 0 15 0
2nd do . . 0 10 0
3rd do . . 0 5 0

31. Best specimen of Fancy Netting . .	0	15	0
2nd do . .	0	10	0
3rd do . .	0	5	0
32. Best specimen of Fancy Bark Work .	0	10	0
2nd do . .	0	5	0
33. Best specimen of Bead Work	0	10	0
2nd do . .	0	5	0
34. Best specimen of Fancy Work of any description not above specified	0	15	0
2nd do . .	0	10	0
3rd do . .	0	5	0
35. Best specimen of Wax Work	1	0	0
2nd do . .	0	10	0
3rd do . .	0	5	0
36. Best display of Artificial Flowers, in Cambric, Paper, &c.	0	10	0
2nd do . .	0	5	0
37. Best specimen of Ornamental Leather Work .	0	10	0
2nd do . .	0	5	0

Manufactures of Hay, Straw, India-Rubber or other Vegetable Substances, not before specified.

38. Best display of Straw or Hay Hats . .	1	0	0
2nd do . .	0	15	0
39. Best single article of Hay or Straw Manufacture	0	10	0
2nd do . .	0	5	0
40. Best dozen Corn Brooms	0	5	0
41. Best display of India-Rubber Shoes . .	0	10	0
2nd do . .	0	5	0
42. Best specimen of India-Rubber Cloth or other fabric . . .	1	0	0
2nd do . .	0	10	0
43. Best specimen of Manufacture from any other Vegetable Substance not otherwise specified .	0	15	0
2nd do . .	0	10	0
3rd do . .	0	5	0

Paper, Stationery, Types, Typography, Book-Binding, &c., made in the country.

44. Best assortment of paper for various purposes,	1	5	0
2nd do . .	0	15	0
45. Best specimen of any single kind of paper, . .	0	10	0
2nd do . .	0	5	0

Miscellaneous.

46. Best pair of Snow Shoes	0	10	0
2nd do . .	0	5	0
47. Best collection of Stuffed Birds; natives of Canada	1	5	0
48. Best collection of Preserved Insects, natives of Canada	1	0	0
49. Best collection of Fishing Tackle . . .	1	0	0
50. Best single specimen of do	0	10	0
2nd do . .	0	5	0

CLASS IV.

Fine Arts.

1. Best collection of Daguerrotypes . .	1	5	0
2nd do .	0	15	0
2. Best single specimen of do	0	10	0
2nd do .	0	5	0
3. Best Photograph on Paper	1	0	0
2nd do .	0	10	0
4. Best Photograph on Glass or other material, .	0	15	0
2nd do .	0	5	0
5. Best Original and Historical Painting in Oil—Canadian Subject . .	2	10	0
2nd do . .	1	5	0
6. Best Landscape in Oil, (from nature) Canadian subject	2	0	0
2nd do . .	1	0	0
7. Best Original Oil Painting of Animals, grouped or single	1	10	0
8. Best Portrait in Oil, (from life) . .	2	0	0
9. Best Original Painting in Oil of Fruit or Flowers	1	10	0
2nd do . .	0	15	0
10. Best Landscape in Water Colors, Canadian subject	1	5	0
2nd do . .	0	10	0
11. Best Miniature or other Portrait (from life) in Water Colors . .	1	0	0
2nd do . .	0	10	0
12. Best Water Color Piece of any other subject, (original or from nature) .	1	0	0
2nd do . .	0	10	0
3rd do . .	0	5	0

(All in this class to be the performance of Exhibitor.)

Competitors shall give a list of the articles to be exhibited, naming the respective sections in which they are entered.

CLASS V.

HORTICULTURAL PRODUCTS.

Bouquets, Wreaths, &t.

SECTION.

1. For the two best large Vase, Bouquets—1st premium	1	0	0
2nd do - -	0	15	0
3rd do - -	0	10	0
2. For the best pair side table or Fan Bouquets,			
1st premium - -	0	10	0
2nd do - -	0	7	6
3. Floral Design—1st premium	1	5	0
2nd do - -	0	15	0
3rd do - -	0	7	6
4. Wreaths—1st premium	0	10	0
2nd do - -	0	5	0
5. Best Garland of 30 feet,			
1st premium - -	1	0	0
2nd do - -	0	15	0
6. Stone plants—Best collection	1	10	0
2nd best - -	1	0	0
7. Green-Houseplants,			
Best collection -	2	10	0
2nd best - -	1	15	0
3rd do - -	1	0	0
8. For the best two Plants not grown in green-house	0	10	0
9. For the best two Herbarium containing dried specimens of Indigenous Plants	2	10	0

Flowers.

10. Annuals — For the greatest variety,			
1st premium - -	1	10	0
2nd do - -	1	0	0
3rd do - -	0	15	0
11. Biennials — For the greatest variety,			
1st premium - -	1	0	0
2nd do - -	0	15	0
12. Cockscombs — For the best six,			
1st premium - -	0	15	0
2nd do - -	0	10	0
13. Stocks — For the best collection,			
1st premium - -	0	10	0
2nd do - -	0	2	6
14. Salpiglosis — For the best collection,			
1st premium - -	0	5	0
2nd do - -	0	2	6
15. Hollyhocks — For the best dozen sorts, with stalks.			
1st premium - -	1	0	0
2nd do - -	0	15	0
3rd do - -	0	10	0
16. Petunias — For the best collection,			
1st premium - -	0	7	6
2nd do - -	0	5	0
3rd do - -	0	2	6
17. Pansies — For the best dozen distinct blooms, 1 of each,			
1st premium - -	0	15	0
2nd do - -	0	10	0
3rd do - -	0	7	6
18. For the best collection of Pansies—1st premium	0	15	0
2nd do - -	0	10	0
19. Asters — For the best 30 distinct sorts, one of each,			
1st premium - -	1	0	0
2nd do - -	0	15	0
3rd do - -	0	10	0
20. For the best collection	0	5	0
2nd do - -	0	2	6
21. Phlox Perennial — For the best collection named,			
1st premium - -	0	10	0
2nd do - -	0	5	0
22. Phlox Annual — For the best collection named,			
1st premium - -	0	7	6
2nd do - -	0	5	0
23. Balsams — For the best collection,			
1st premium - -	0	10	0
2nd do - -	0	7	6

24. Verbenas — For the greatest and best variety,
1st premium - - 1 0 0
2nd do - - 0 15 0
3rd do - - 0 7 6

25. For the best dozen named 1 bloom of each, 0 7 6
2nd do - - 0 5 0

26. Dahlias — For the best 18 dissimilar blooms named, 1 of each,
1st premium - - 1 0 0
2nd do - - 0 15 0
3rd do - - 0 10 0
4th do - - 0 5 0

27. do For the best 12 dissimilar blooms named, 1 each,
1st premium - - 0 7 6
2nd do - - 0 5 0

28. do For the best 6 dissimilar blooms named, 1 of each,
1st premium - 0 7 6
2nd do - - 0 5 0

29. Perpetual Roses — For the best collection of Cut Roses, named,
1st premium - - 1 0 0
2nd do - - 0 15 0
3rd do - - 0 7 6

30. Herbaceous Plants — For the best collection named,
1st premium - - 0 15 0
2nd do - - 0 7 6

Fruits.

31. Plums — For the largest collection of the best flavored,
1st premium - - 1 0 0
2nd do - - 0 15 0
3rd do - - 0 10 0

32. For the best Basket Damson Plums - 0 10 0

33. Peaches best collection raised under glass,
1st premium - - 0 15 0
2nd do - - 0 7 6

34. do Best named collection of open culture,
1st premium - - 0 10 0
2nd do - - 0 7 6
3rd do - - 0 5 0

35. Apples — For the best collection, not less than 20 varieties, and 6 of each,
1st premium - - 4 0 0
2nd do - - 2 10 0
3rd do - - 1 5 0

36. do. For the best collection, not less than 12 sorts and six each - - 1 5 0
2nd do - - 0 15 0

37. For the best Basket of Table Apples - 0 10 0

38. Pears—For the best collection—1st premium 1 0 0
2nd do - - 0 10 0
3rd do - - 0 5 0

39. Nectarines—Best collection,
1st premium - - 0 7 6

40. Grapes—For the best display raised under glass,
1st premium - - 2 10 0
2nd do - - 1 5 0

41. do For the 2 heaviest ripe bunches grown in open culture,
1st premium - - 0 15 0
2nd do - - 0 10 0

42. do For the best heaviest ripe bunches of Black Grapes, grown under glass,
1st premium - - 0 15 0
2nd do - - 0 7 6

43. do For the 2 heaviest and best ripe bunches White Grapes, grown under glass,
1st premium - - 0 15 0

44. Fruit—For the best basket of various sorts,
1st premium - - 1 0 0
2nd do - - 0 10 0

45. Melons—For the 2 best and richest flavored,
1st premium - - 0 15 0
2nd do - - 0 7 6
3rd do - - 0 5 0

46. For the best Water Melons—1st premium, 0 10 0
2nd do - - 0 5 0

Vegetables.

47. Cabbage—For the 2 best winter varieties,
1st premium - - 0 15 0
2nd do - - 0 10 0

48. do Summer Cabbages,
1st premium - - 0 15 0
2nd do - - 0 10 0

49. Cauliflower—For the 4 best heads—1st premium 0 10 0
2nd do - - 0 7 6
3rd do - - 0 5 0

50. Brocoli—For the 3 best heads,
1st premium - - 0 10 0
2nd do - - 0 5 0

51. Celery—For the best solid blanched, not less than 6 heads,
1st premium - - 0 7 6
2nd do - - 0 5 0

52. Beets—For the best 6 roots, with leaves entire,
1st premium - - 0 15 0
2nd do - - 0 7 6

53. Tomatoes—For the best 12,
1st premium - - 0 10 0
2nd do - - 0 5 0

54. Carrots—For the best 12 for table,
1st premium - - 0 10 0
2nd do - - 0 7 6

55. Parsnips—For the best 12 for table, - - 0 7 6
2nd do - - 0 5 0

56. Onions—For the best collection of different sorts, not less than 12 of each, 1st premium, 0 15 0
2nd do - - - - 0 10 0
3rd do - - - - 0 7 6

57. Egg Plants - For the best collection, 0 5 0

58. Salsify—For the best 12 roots - 0 5 0

59. Squashes - For the 2 best Canada,
1st premium - - - - 0 15 0
2nd do - - - - 0 10 0

60. Pumpkins—For the 2 heaviest,
1st premium - - - - 0 15 0
2nd do - - - - 0 10 0

61. Vegetable Marrow—For the 2 best specimens, 1st premium - 0 7 6
2nd do - - - 0 5 0

62. Vegetables—For the best display and greatest variety, not more than 2 specimens of each, 1st premium - 1 0 0
2nd do - - - 0 10 0
3rd do - - - 0 7 6

63. For the best kept Cottage Garden and Grounds within 3 miles of Three Rivers. Competitors to send notice before the 1st June of intention to compete for this prize - - 2 10 0

RULES AND REGULATIONS.

For the Horticultural Department.

1. All Fruit, Flowers, and Vegetables, *placed in competition for premiums*, are to be the growth of Competitors, and are to be arranged in as tasteful a manner as possible.

2. All articles to be exhibited for premiums must be placed in the stands by ten o'clock, A. M., on the day of the Exhibition *This rule will be strictly adhered to.*

3. All articles exhibited shall remain in the Hall until the close of the Exhibition, when they will be delivered to the contributors, unless otherwise directed.

4. The Judges shall have the discretionary power of withholding premiums, if, in their opinion, the articles exhibited do not merit them.

5. In awarding premiums on Plants in Pots, special reference will be had to the beauty of the specimens profusion of bloom, and evidence of superior cultivation. Inferior specimens will be excluded by the Judges from competition.

6. Gratuities will be awarded by the Judges for any new or rare Fruit, Flowers, Plants, or other object of particular interest, and for which no special premium has been offered

7. Parties will not be allowed to take more than one prize in the same class.

8. It is also required that Fruit, Flowers, and Vegetables, should be accompanied by brief observations on the mode of cultivation, *if peculiar*, together with other remarks of utility.

9. No individual, except the Judges, will be allowed to touch or handle any Fruit, Flower, or other articles exhibited.

10. The decision of the Judges, as regards the premiums, must be considered final.

11. The Judges shall not be Competitors in that Class for which they are to award premiums.

12. No person allowed to be present while the Judges are awarding premiums.

13. Any deviation more or less from the exact quantities or number specified in the Schedule will disqualify a competitor.

14. No entry will be made in the Horticultural Department unless a list of articles, with the respective sections is furnished to the Secretary.

AUCTION.

An Auction Sale of Stock and Implements will take place on the 19th at one o'clock. Exhibitors should state with their entries whether Stock is to be exposed to sale, and furnish particulars of pedigree to enable the Secretary to give the Auctioneer the information requisite for his Catalogue of Sale.

N.B.—Attention is particularly called to the Regulation in regard to the time of making entries. Under no circumstance will an entry be received after the 1st September.

These Regulations will be strictly attended to.

By order of the Board, WM. EVANS,
Sec. & Treas. Board of Agriculture.

Montreal: Printed and Published by H. Ramsay, No. 37, St. François Xavier Street.

The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

Vol. II, No. 10, Montreal, February, 1855. Postage Free. Price 2s. per annum, in advance.

The Farmer's Journal.

CORRESPONDENCE.

THE PARIS EXHIBITION.

(To the Editor of the Farmer's Journal.)

Sir,— The Executive Committee of the Paris Exhibition having charged me with the duty of collecting and classifying the Agricultural Products of the Province, in order that they may be advantageously displayed at the Palace of Industry, I beg leave through the medium of the columns of your inestimable journal to publish such information as will be useful and necessary to those who intend sending produce to the great Exhibition.

By reference to the system of classification published by the Imperial Commission, and which will be found re-printed in the "Farmer's Journal" for December, we read the following:—

Charts of the Theory of Agriculture.

Plans for Laying-out Estates.

System of Rotation of Crops, &c.

By this classification it is clearly to be seen that the Imperial Commission desire to unite the theory with the practice of agriculture, the best system of rotation of crops to be pursued in situations and soils of a similar character. The intelligent farmers of Canada will see the great importance of placing in their charts, the plans, rotation of crops, and character of soil, together with all such useful information in regard to the working of the land as will make the system intelligible to persons at a distance.

The Executive Committee will also have pleasure in receiving, all specimens of produce sent, and samples of soil and of manure which could be most conveniently made up in boxes containing about a pound each, and endorsed with an explanation written on each box.

Especially in the second section of Canadian Husbandry is it desirable that models should be sent, systems of draining and irrigation explained, and plans of improvement detailed. Drainage has been practiced among us with intelligence and ability, and it is highly important that the various systems should be made known, and models of such machines as are employed sent to the exhibition.

Buildings used for residences in Canada and for agricultural operations will possess interest for those at a distance. I do not say that an English or a French or an Italian visitor to the exhibition would be likely to profit by any models and plans sent, but there are other countries in Europe, such as Poland and Sweden, where the climate approximates to our own, and to whom it is important to study the manner in which we lodge our people, and our animals in inclement seasons, and the manner in which we traverse the country during our rigorous winters, as also the way in which we construct our dairies, and conduct our farming operations generally.

If your readers will refer back to the number already quoted of your Journal for December, they will perceive the motives which have influenced the Imperial Commission in the course pursued, and the importance that is attached to collecting such statistical information, and placing it at the disposal of the Commission.

Objects that cannot be conveyed on account of size, or any other cause, might be represented by models executed in plaister or in wood.

It would be likewise valuable to the Commission if the Farmers would forward specimens of grain, &c., which have suffered by fly or other insects, together with some account of the habits of the insect, in order that the Commission may compare specimens from different countries, and suggest remedies.

In one word all communications which will advance and illustrate the agriculture of the Province at the great Exhibition will be gratefully received.

I have the honor, &c.

M. F. Ossaye,

Agent to the Executive Committee.

To the Editor of the Farmer's Journal.

Dear Sir,—For the benefit of the farmers in general, wishing to procure a breed of pigs unsurpassable, I herewith give you the weight of a two year old pig and prize sow with a litter of six young pigs out of eight I had slaughtered this fall, they are the same breed I had advertised in the *Farmer's Journal*.

	lbs.
The hog dressed.....	610
The prize sow after suckling her pigs three months....	582

The six young ones, when about ten

months old, are as follows:—260, 265, 240, 230, 245, 220, in all 2652 lbs.

At the remunerating prices pork was selling in the fall, I see nothing to repay the farmer more generously than feeding a good breed of pigs, as I sold the latter quantity for 6d per pound, wholesale. Parties wishing young pigs, must apply early.

Respectfully your's,
CHS. HUGHES.

Three Rivers, 28th Dec., 1854.

TO CORRESPONDENTS.

We have received the communication of "Plough," but in accordance with a rule we have laid down in common with other conductors of the press, must decline to insert it. The communication does not bear the writers name, and contains strictures upon other persons whom it *does* name. We are glad to receive communications from our friends upon points of farming and general interest, but disapprove of personalities, and although obliged to our correspondent for his good opinion, must decline to insert his communication.

BOARD OF AGRICULTURE, LOWER CANADA.

MONTREAL, *Wed., Jan. 31st*, 1855.

The Board of Agriculture met this day at their Rooms, in this City, pursuant to notice to the Members.

Members present:—Major Campbell, C. B., President, Messrs. R. N. Watts, J. B. Dumoulin, James Thompson, John Dods, E J. DeBlois and J. C. Taché, M.P.P, Esquires.

Major Campbell having taken the Chair, the Board proceeded to take into consideration the accounts of the Local Committee of Quebec, arising from the late Exhibition.

It appears that the President of the Local Committee, on the 22nd February, 1854, was made acquainted with the following estimate of Revenue and Expenditure upon which proceedings were to be based.

Probable Expenditure.

	£	s.	d.
Prize List and Expenses,	1500	0	0
Buildings and Fences,..	800	0	0
Expenses of Local Committee for Contingencies, Secretary, Messengers, &c.	250	0	0
Refreshments for Judges,	50	0	0
Total,.....	2600	0	0

Probable Revenue.

Quebec Corporation, ...	300	0	0
10 per cent allowed by law from Agricultural Societies,.....	750	0	0
Quebec Agricultural Society, for the current year's income.....	250	0	0
Collection at the Door for entries.....	750	0	0
	2050	0	0
To be collected at Quebec from different sources,	600	0	0

To which Mr. Gibb, the President of the Association, made no objection, and named the Local Committee, of which he was appointed the Chairman.

In order to carry out the provisions (clause 21) of the Act, establishing the Board of Agriculture, one of its members, Mr. DeBlois, and Mr. Gibb, who as President of the Provincial Association was *ex-officio* member of the Board, were named by resolution a Committee to represent the Board at Quebec and control the expenditure.

On the 25th Nov., Mr Secretary Eckart, on behalf of the Local Committee stated that all the funds at its disposal were spent, and asked for a remittance of £801 3s 3d, to enable the Local Committee to close accounts.

On the 27th Nov., Mr. Eckart was required to send a detailed statement of receipts and disbursements for the information of the Board, which was furnished on the 1st December. The bad condition of the roads and almost impassable state of the rivers at that time, and the Christmas holidays coming on soon after, caused some unavoidable delay in obtaining a quorum of the Board at an earlier date than the present.

It is remarked that the Local Committee in the original estimate of expenditure was limited for Secretary, printing and contingencies to £250.

Their disbursements amount to:—

Mr. Eckart, Secretary £250	0	0	
Johnson, Messenger	9	13	1
Belleau, Clerk...	13	0	0
Eckart, jr., Clerk.	30	0	0
Cary, printing....	13	16	8
Fréchette, do...	6	1	5
St. Michel, do...	10	13	0
Roger, do...	3	19	11
Bureau and Marcotte, printing..	4	17	6
Brosseau, stationery, printing & hand-bills.....	45	18	1
Coté, printing....	11	8	10
Middleton, do...	3	4	11
Daily Colonist, do	5	10	0
Vallières office furniture....	11	8	0
Cartage of do. and models	3	10	0
Amount spent by the Committee.....			423 1 5
Allowed by the Board			250 0 0
Difference between Board's estimate and Local Committee's expenditure....			£173 1 5

It was resolved unanimously.

1. As the Local Committee had no authority either from the Board or the Committee named to represent the Board at Quebec, to exceed the estimate, it becomes necessary to prevent all difficulty for the future as well as to determine once for all the principle of the responsibility of Local Committees to this Board, in accordance to the Law; to refuse payment of this sum of £173 1s 5d, being the excess of expenditure over and above the sum named in the estimate; on the same principle, the Board feels it incumbent to refuse payment of the following sums, disbursed without authority £173 1 5

Fire Brigade...£25	0	0		
Grant to Water Works.....	12	10	0...37	10 0
Total disallowed...			£210	11 5

Certain charges in account cannot be passed until the vouchers have been forwarded, as the Board has no means whatever of ascertaining at present for what purpose this money was disbursed, viz:—

Sundry miscellaneous payments.....£59	18	4	
Boisvert and Bouchard sundry	2	9	5
The charge for mowing the ground appears enormous, nor is there any account of the proceeds of theh ay—explanation required.....	16	6	3
In the same estimate appear also sundry small debts—details required	20	1	10

The Board observes that certain premiums still remain unpaid and directs the Secretary to remit to Mr. Gibb the sum of £63 17s 6d, to liquidate them.

With reference to these premiums being unpaid it is necessary to observe that Mr. Eckart's letter of the 22nd Jan., 1855, informs the Board that the sum which was remitted on the 27th Sept., for the payment of the agricultural premiums, had been deposited in the Common Fund, whereby a part of it had been made use of to pay other accounts—a principle which it is impossible to admit and which the Board most distinctly repudiates. The Board directs the President to draw on Mr. Dunscomb, the Prestdent of the Agricultural Society of Quebec for the sum of £75, the subscription of the Quebec Agricultural Society towards the funds of the Exhibition for the past year which sum appears by Mr. Dunscomb's letter of the 22nd Jan., to be at the disposal of the Board.

The good disposition of the Board is shown and its readiness to acquiesce in any reasonable unforeseen outlay, by the fact that it consents to the payment of the sum of £1,450 for sheds and enclosing the ground although the estimate only allowed £800 for the purpose ; it having been satisfactorily shown that the sum originally estimated became insufficient in consequence of the extraordinary rise in the price of materials and labour.

However much disposed the Board may be to put a liberal construction on the accounts of the Local Committee it has felt itself imperatively called upon, as guardian of the Agricultural Purse of Lower Canada, not to establish a precedent which would not fail to entail much confusion on future similar occasions.

It was quite clear that it was never contemplated that the Board of Agriculture with only limited means at its disposal should be responsible for the debts of Local Committees incurred without its authority or concurrence, yet the Board considered it prudent to take additional precaution in order to avoid all possibility of difficulty and misapprehension with the Local Committee of Quebec and accordingly before it would issue a premium list or incur any expense whatever in relation to the proposed Exhibition—it made known to the President, Mr. Gibb the state of its funds and the probable receipts and expenditure and obtained his implied consent to that estimate.

In this estimate the Local Committee was called upon to collect £600, by voluntary subscriptions and to confine itself to £250 for contigencies of all kinds including Secretary, Messengers and printing,

As so much was expected from the Local Committee the selection of the gentlemen who were to compose it was left altogether to Mr. Gibb, and it was formed and entered upon its duties with this estimate for its guidance.

Under these circumstances it has been with some surprise that the Board discover by the accounts, that the Local Committee while it falls short of furnishing the amount which it was required to collect by £218 3s 4d and which the Board was led to expect could be collected without difficulty had charged several sums for premiums, gratuities and other items for which it had no authority ; that while its contigencies of all kinds were to be limited to £250 they exceed that sum by £173 1s 5d, £250 were awarded to the Secretary, alone, a sum altogether disproportionate to the required services —a sum exceeding the expence incurred by the Board of Agriculture for the salary of its Secretary, Assistant Secretary, rent of office, postage and stationery for the whole of the past year by £48 5s 1d.

2. Resolved—With reference to the resolution of the Board this day adopted on the accounts of the Local Committee—that the following be sent to the President as the state of the accounts between the Board and the Local Committee :—

Sundry items of expenditure disallowed amounting to	£211	5	0
Balance on hand of Local Committee	3	9	1
Together	£214	14	1
To which add items not yet passed for want of details and vouchers	136	5	10
Total	£350	19	11
Remitted by check to Mr. Gibb to pay outstanding premiums	63	17	6
Do. to pay to Vallée contractor	386	5	10
Which makes up the amount, the Secretary of the Local Committee claims of the Board	£801	3	3

3. Resolved—That in accordance with the preceding resolutions, the Secretary Treasurer be instructed to send to Mr. Gibb, President of the Quebec Local Committee a check for the sum of £375 3s 4d and an order on Mr. Dunscomb, President of the Agricultural Society of Quebec, for the sum of £75.

4. Resolved—That the President be charged on behalf of this Board, with the final settlement of the Quebec Exhibition, in 1854.

The Annual Report to the Minister of Agriculture for the year 1854 was read, approved of, and ordered to be transmitted, with a statement of the Funds for the same period.

R. N. Watts and James Thomson, Esqs., were appointed a Committee to examine the accounts and vouchers of the Secretary and Treasurer, and they after a careful examination of the same certified to their correctness.

By order of the Board,

WM. EVANS, *Secretary and Treasurer of the B. of A.*

PROGRESS OF AGRICULTURE.

We print below, from the Upper Canada papers, an account of the last meeting of the Board of Agriculture. The Report shews that our agricultural friends in the Upper Province are heartily alive to the importance of improving agricultural practice, and resolutely determined to press forward ascertained improvements, with the constancy and spirit which are essential to success, and necessary to develope the agricultural resources of the Province.

The farmers of the Lower Province have equal occasion to study and adopt the means of agricultural progress, and the season affords them comparative leisure to reflect upon the various suggestions offered, and to discuss their applicability, or the application of any new means for the developement of our resources. We have already stated that our columns are open to communications upon all questions relating to agricultural and rural economy, and we trust they will be fully debated. The discussion of such questions in the periodicals of the day, and by societies specially formed for their consideration, is the best means of testing their value, and bringing about their adoption.

Farmers from the old country, who can look back to the condition of agriculture in many districts of England and Scotland 30 or 40 years ago, will bear us out in the assertion that high farming was as ill understood at the time there, as it now is here in Lower Canada, and that it would have probably continued the same but for the competition in the old country which has created the necessity, which it may one day create in the Canadas.

The importations of improved stock and implements, the drainage of wet lands, the value and employment of manures, the proper rotation of crops, all these, and many more, are questions of the highest importance to the farmer. He who, trusting to the experience of his ancestors, is content to raise from year to year the harvest which his farm affords, without making the necessary efforts to increase its productive powers, will assuredly be overtaken in the race, by the man who studies every means of improving his land, and increasing the products to be derived from it. The man who for the first time purchases a single pounds worth of guano to increase the breadth of his turnips, has entered upon the path of improved farming, and if his outlay is productive of good he will pursue it to a profitable end. but to do this with safety and advantage, he must profit by the experience of others, and must be himself well informed upon matters which so closely affect his best interests. We rejoice to see that the Upper Canada Society has decided to publish the transactions of its members, and hope the farmers of Lower Canada will bear in mind the importance of sustaining and upholding a press, devoted to the advocacy of their interests.

MEETING OF THE BOARD OF AGRICULTURE, UPPER CANADA.

The Upper Canada Bo rd of Agriculture held a meeting at their rooms in this city, on the 6th, 7th and 8th instant.

The following members were present; E. W. Thompson, Esquire, (President) Hon. Adam Fergusson, C. P. Treadwell, R. L. Denison John Hartland, Esqs., and Professor Buckland. The following is a brief abstract of the business done:—

A large number of communications were received and read, relating to matters of detail and which, after receiving due consideration, were duly disposed of by the Board.

A communication was received from Mr. Evans, Secretary of the Lower Canada Board of Agriculture, stating that it had been decided to hold the next Provincial Exhibition of Lower Canada at Sherbrooke, on the 12th, 13th and 14th September, 1855.

A communication was received from Mr. Sheriff Ruttan of Cobourg, stating that preliminary action had been taken in Cobourg, in relation to the exhibition to be held there next autumn, and proposing the following gentlemen to form the local committee, viv.: Sheriff Ruttan, John Wade, Asa A. Burnham, Sir Edward Poore, George E. Castles, P. R. Wright, Alex. Alcorn, Walter Riddle, Ralph Wade, C. H. Morgan, H. Jones Ruttan, Thomas Scott, D. E. Boulton, Thomas Eyre and Francis Burnett, A. A. Burnham, to be Tresurer, and H. Jones Ruttan to be Secretary.

At a subsequent stage of the proceedings the recommendations embodied in this communication were adopted, and the Committee organized accordingly; with the exception of the name of Mr. William Weller being substituted for that of Mr. Sheriff Ruttan, who is ex-officio a member of the Local Committee.

Several communications were received in reference to the subject of offering encouragement for the importation of Stock; but the Board having already offered double the amount of premium for all animals imported since the exhibition previous to the one at which they shall take the first prize, declined takinag any further action in the matter at present.

Reports, &c.

The Treasurer, R. L. Denison, Esq., brought up his report and balance sheet, of the receipts and expenditure of the Association for their financial year of 1853-4, from which it appeared that the total amount received from Government for distribution to County Agricultural Societies, and from the exhibition at Hamilton and the experimental Farm, was £11,152 8s 7d, and the total disbursement, including distribution to Counties, expenditure on Experimental Farm. Prizes and expenses of the Exhibition, and other expenses of the Board, was £10,391 0s 10d, leaving a balance in th Treasurer's hands previous to the Exhibition at London of £761 7s 9d.

The President brought up a report on behalf of a special Oommittee of the Board, appointed to award a prize of £20, offered by his Excellency Lord Elgin, for the first Drain Title Machine which should be in successful operation to the satisfaction of the Board. The only competitors were Mr. J. H. Charnock, of Hamilton, and Mr. Bailey, of Darlington. The prize was awarded to Bailey, on the ground that his machine was the first in efficient and practical operation, large numbers of the tiles made by him having been used for draining purposes, and some 20,000 of them having been used by Mr. Mundie, in the improvement of the grounds for the new Government buildings at Toronto. The Report was adopted, and the prize ordered to be paid Mr. Bailey.

A bill brought before Parliament by Mr. Felton, M.P.P., to amend the Act establishing the Bureau of Agriculture, having been referred to the Board, it appeared that one part of the bill merely provided for the formation of County Agricultural Sooieties in the same manner as the bill proposed to be amended, and which is already in operation in every county in Upper Canada; the other part, and which would be the only alteration from the Act, provided for the election of new members of the Board at the annual Provincial exhibitions in autumn, instead of at the annual meetings of the county societies in the spring. The Board were of opinion that this alteration would not be of any benefit, but would be impossible to carry out satisfactorily at the autumn exhibitions.

The subject of the publication of the Transactions of the Board having been previously under considertion, it was again taken up. After some discussion, it was resolved to publish the transactions in the shape of a Quarterly Journal, similar to the Transactions of the Highland and Agricultural Society of Scotland, the first parts of the said Journal to contain a succinct history of the Association from its first organization; and copies of the Journal to be sent gratuitously to members of the Legislature, heads of Government Departments, Agricultural Societies, Newspaper offices, &c., the first number to come out on 1st March next. A special committee was then appointed to carry out the object of the above resolution.

The Hon. Adam Ferguson introduced a set of resolutions in reference to the registering of stock, as a substitute for a Herd Book, the difficulties in the way of getting up which it is believed are very great. The resolutions set forth that the opening of a stock Register by the Board, for thorough bred stock, whether horses or cattle, would be a great aid and encourgement to the spirited and enterprising breeders of the country; that any person desirous of availing himself of such a register could do so, on certain terms, but that no animal should be registered unless the descent of the same shall be traceable to the British or American Herd Book. After some discussion these resolutions were adopted.

Hon. Adam Fergusson then brought forward another set of Resolutions to the following effect:—That the establishment of a Veterinary School, organized upon scientific principles, would prove of essential importance to the Agricultural interests of this Province; that such an institution well deserves the patronage and support of this Board; that a Veterinary Lecturship, Anatomical School and Museum, Hospital and Forge, would find a good location in Toronto, and may with ease, and much mutual advantage, be connected with the Agricultural chair; that a Committee be appointed to call the attention of the Bureau of Agriculture to the subject, and respectfully to offer suggestions towards its establishment with as

little delay as possible; and that the above Committee shall report progress from time to time to the Board, and use every means in their power to carry the measure into effect. These resolutions were also adopted, and Mr. Fergusson was authorised, as Chairman of the Special Committee appointed, to correspond with the Government on the subject.

The time to be appointed for holding the next Provincial Exhibition at Cobourg, was then discussed, and it was finally decided to have it take place on the Second Tuesday in October next.

A Resolution was then proposed and carried, conveying the thanks of the Board to Professor Hind, for a collection of specimens of 30 or 40 different varieties of Wheat, presented by him to the Board.

At this stage of the proceedings, Mr. Henry Cowing applied for permission to explain diagrams of a machine invented by him, and which he calls a "Locomotive steam plough, and machine of all work." After listening to Mr. Cowing's explanations, the Board adopted a Resolution recommending the invention to the notice of the Bureau of Agriculture, and suggesting that Mr. Cowing should receive some assistance towards getting up a model, with the view of exhibiting it at the Paris World's Fair.

The question as to which Counties, Prize Agricultural Reports shonld be from, in 1855 was then considered, and it was agreed to ballot severally for one of the Western, one of the Central, and one of the Eastern Counties of the province, excluding those for whieh Prizes have already been awarded. This being done, the choice fell upon the Counties of Bruce, Simcoe and Prescott, which are accordingly eligible for Prize Reports in 1855.

Several alterations were then proposed and adopted, as to the mode of taking entries for competition at future exhibitions, the principal one being that applications for entries shall be made upon printed forms furnished by the Board, such forms to be returned to the Secretary's office two weeks before the Exhibition should take place.

By a Report from the Secretary it appeared that the members who retire from the Board this year, according to provisions of the Act, but who, however, are elligible for re-election, are the hon. Adam Ferguson, David Christie and J. B. Marks, Esqs. The Secretary was authorized to direct a circular to County Societies, calling their attention to this and other duties at their annual meetings in February next.

A number of other matters of minor importance were next brought up and disposed of, and the Board adjourned till further notice.

ON MAKING AND SAVING MANURE.

To save manure by your woodland.—Clear a space in a suitable place in your woodland, and of sufficient size; early in the fall gather all the *leaves* so far as is practicable, which have fallen; lay them a foot or so thick, on the surface of the cleared space; now put a layer of *mould, turf, muck*, the *surface soil of your woodland*—in fact anything or substance which will hold the gases evolved by the decaying leaves—as may be most convenient, over these leaves, and so on, until you have a pile as large as you need. In due time the leaves will have become decomposed, and are in a fit state to apply to your land. Quick lime or unleached ashes, will hasten the process. The earth, muck or turf, answers a double purpose; prevents the leaves from being scattered by the wind, and holds the volatile gases of the leaves.

By weeds.—Weeds are not altogether useless; for they can be very economically made into manure, thus giving back to the land, what they extracted from the same, as well as that drawn by the atmosphere. All weeds should be cut up by the roots, or drawn up, roots "and all," before they seed, unless you wish to *propagate* them. Gather them together after cutting, and compost them as directed for *leaves*.

By old or worn-out pastures.—If you have a worn-out pasture, a good way of making manure from it, is to plow it at once—then with a scraper, or anything that will answer your purpose, gather it up in a heap, whence it can be taken to the barn-yard, and spread over the same, to retain the fluid portions of manure, composted with barn-yard manure, carcases of dead animals, and other putrescent manure, or composted as directed for the two foregoiug substances.

By straw.—With straw, cattle and horses should be kept thoroughly littered, while in their stalls; the yards should also be littered to a good depth with it; and it will be a great advantage if it is first cut. (we shall speak more fully as to the uses of straw as manure under the following head.)

By the stables and barn-yard.—The stables of a farm should have a proper stercorary or stercoraries adjoining them, with cisterns underneath for retaining the urine of the stock, which should be conducted to them by gutters. These stercoraries may be 3 feet deep, or rather the *pit* of the stercoraries should be from 6 to 10 feet wide, and of an indefinate length. It should have a roof, and be walled or fenced at the ends and *exposed* side, (the other side being joined to the stable,) leaving an opening of sufficient size for conveniently removing the manure. A pump, or pumps should be fixed in suitable places over the cisterns, for pumping the urine on the manure in the stercorary as wanted. Into this stercorary the manure of the stock should daily be thrown, and there composted with turf or muck, 2 or 3 parts turf or muck, to one of the manure, unless you have a large quantity, or a prospect of obtaining a large quantitu of pure dung, when it would be for your advantage to use less turf or muck, say 1 or 2 parts turf or muck to one of dung. (When we say "a large quantity," we mean *in proportion to the size of the farm.*) Once a week, or oftener, pump this urine on this heap of manure, to *enrich* it, and prevent *fire fanging*. Your *barn yards* should have a layer of turf or muck, to the depth of 6 to 12 inches, and over this a layer of straw— here you must be governed by the quantity on hand, which will make the depth more or less. The straw by being trodden over by the cattle, and receiving their droppings will be both enriched, and rendered less *stiff*, making it easier to plow into the land. The muck or turf, will receive and *retain* such of the fluid portions of manure as pass or as may be washed by rains, through the straw. A few weeks before using, the straw and muck should be gathered up from the yards, and deposited in a part of your stercorary, left unoccupied for the purpose; twice or three times a week, pump the urine on the straw and muck, which will cause it to ferment, and render it valuable as manure.

Speaking of the value of straw, especially when steeped in urine, the following from Arthur Young proves its efficacy; he says:

"The question relative to long rotten dung appeared particularly interesting I therefore compared straw, cut into chaff, and applied the earths in different circumstances for barley; and the earth without any manure, producing grain as 9. The straw steeped three hours in fresh urine, produced as 50; steeped fifteen hours, produced as 63; steeped three days, produced 126; and applied dry, produced 39. In weight of straw and grain, the plain earth giving 48; that of three hours, 120; that of fifteen hours 130; that of three days, 300; and dry, 100."

Those who hesitate about believing the above, will please note, it is not *theory* but *practice*.

Another source of manure is the *hog-pen*. The pens and yards should be kept covered with turf or muck—the excrement should be often removed to a part of the *under cover*, and a few grains of corn thrown over it, when you will find the hogs to be "faithful servants," as well as *faithful to their stomachs*.

A most powerful manure is *night soil*, and one near at hand, it should be prepared by composting it with *fowl manure*—and deodorized by adding charcoal dust and a little *plaster*. Here we have manure nearly equal in effect to *guano*, and at far cheaper rate.

I will conclude by calling attention to another source of manure—*the waste of the house and kitchen*. Every farmer should have, at a convenient distance from the house, a pit or yard surrounded with a stone wall, and roofed—where should be an abundance of peat, turf, charcoal-dust, or any other fertilizing absorbent. To this pit or yard, and on the absorbent used, should by gutters of wood or stone, (as your ideas of

economy may direct; though stone is the cheapest *in the end*, and often in the first instance,) be conducted all the *waste of the house—soap suds, dish water*, &c.— every thing that can be advantageously used as manure, and can be so conducted.

Now, will any farmer of *common sense*, say he cannot *improve his farm*, that he "*cannot afford it*," when such a *mine of wealth*, in the shape of manure is at hand! It is astonishing "how every little helps," especially when used as manure. Many farmers allow their barn-yard manure to lie and rot, exposed to the leaching of rains, and the evaporating power of the sun, losing two-thirds of its virtue, while by building proper sheds for it, they will pay their cost —and enrich the land at the same time—in one season! And as for the other substances above mentioned, they are as a general thing, *entirely neglected!!* At the same time the farmer is crying out against his farm, his seed, his manure, *(when he does not make use of one-tenth part of it!)* his men, his tools, his horses, his every thing, *when he is the only person or thing to blame!!*

Farmers, remember your manure is your *gold*, and your farm your *mint*. The more gold you furnish your mint, the more coin (*i. e.* crops) you withdraw therefrom.—*Country Gentleman.*

TREATMENT AND MANAGEMENT OF HORSES.

The first thing of importance in the treatment of a horse is, that his stable should be light, clean, and well ventilated. If a stable is dark, partial or total blindness of the animal is the consequence. The window should be towards the south, so that the horse when resting in the day time may have the benefit of the sun's rays, which are as necessary to him as to man. When the stable is very light the inner walls should not be lime whited, as the light reflected from a white surface is highly injurious to the eyes; they should be a dark-grey or stone color. The next most important thing to be considered is ventilation. The door should be at the north end of the stable, and the window at the south, or whatever points of the compass they are situated at, so as to be opposite to each other; they will thoroughly ventilate the stable when the horse is absent. Different modes of ventilation have been tried, but the two that have answered best have been the simplest. The one was having three or four panes of glass taken out of the window, putting perforated zinc in their place. The other was by taking a brick out of each of the side walls, every six feet, taking care to have the holes made as near the roof as possible, by which means a thorough, though gentle, draft was always kept up, not enough to give a horse cold, but ample for ventilation. A moment's consideration as to the necessity of pure air shows the utmost importance of ventilation, and yet men will continue to keep their horses in dark and unventilated stables. Ventilation is as necessary in winter as summer, and there is less risk of injuring horses by cold than by inhaling impure air. The horse inhales atmospheric air and respires carbonic acid gas, one of the most deadly of gases to animal and vegetable life, which if the stable is not properly ventilated, become mixed with the pure air, and is inhaled again and again, and lays the foundation of diseases innumerable.

The next consideration is cleanliness. There is an old saying, "that cleanliness is next to godliness;" and if it is so with man, it is equally so with cattle. Many persons believe, or pretend to believe, that the more cattle stand and sleep in their old filth, the more they thrive. This is an error of ignorance or idleness—perhaps both. Farmers defend the mode of allowing a horse to live and sleep in his own filth, on the ground that by so doing he improves the manure; as if the value of the manure was to be compared with the value of the horse. Brick and stone floors are the best for stables, slanting towards the gutter which carries off the urine. The inclination of the floor should be an inch and a half to a yard. Litter should always be allowed for a horse to stall upon, as it is easily removed, and a little water thrown down occasionally will keep the stables free from smells. Outside the stable, a tub should be sunk with suitable openings, so that the urine that leaves the stable may be collected, and if a little sulphuric acid is added occasionally, nothing can exceed its value as a manure. The more room a horse has in his stall the better, and if he can have a loose box, so much more will he thrive. All wet litter in the horse's absence ought to be taken out doors and dried, and then, when thoroughly dried, it will form a good bottom for a fresh bed. The next consideration is the horse food; this should be oats, beans and hay of best quality. Some persons give their horses musty corn and bad hay, because it is cheaper; but perhaps they are not aware that it is the most expensive way possible to feed horses, for with bad food you buy (whether you bargain for it or not) indigestion, general debility, and diseases too costly to purchase into any stable. The quantity of corn per diem that a horse ought to have is as much as he will eat. Water is as necessary to a horse as food, and horses are found to thrive better by having water *ad libitum* than by being stinted. The best way is to have the manger divided, so that the corn may be in one half, and the water in the other; by this plan the horse takes the water as he wants it, and not when it is offered to him.

THE HOUSEWIFE.

Vegetables and their Cookery.

CARROTS.—This vegetable is but little used except in soups; yet they are very palatable and healthy, containing a great amount of nutriment. They should be placed in boiling water, and served up with melted butter, pepper and salt.

CELERY.—This delicious vegetable is not generally appreciated as a cooking vegetable. Wash the stems clean in salt and water, and drop them in fair boiling water. After boiling twenty minutes take up and drain; place some toasted bread in the bottom of a dish; now lay the celery over and season with melted butter, pepper, salt, and such other condiments as the taste may dictate.

CUCUMBERS.—Who ever heard of cooking a cucumber? we hear our readers exclaim. Try it; and then tell your neighbors how well a poor man may live in this country. Take a cucumber just as it begins to turn yellow, peel and slice it into salt and water; drop it into cold water and boil until tender. Season with salt and pepper—mix with batter and fry. Few can tell it from egg plant.

PARSNIPS.—This vegetable bears cooking with meat better than most others. It may be boiled with beef, pork or mutton. It is also very fine cooked in fair water, and served up with melted butter.

SQUASH.—The early bush and crookneck are only fit to cook when very young: cut the stems and flower ends off, and drop into boiling water; when done take up and drain through a colander; then with a wooden spatula, mash until the mass is perfect jelly. Now add sweet butter, salt and pepper, and serve up for the table. Marrow squashes should be split open, the seeds taken out, the skin taken off, and dropped into boiling water; when done, take up and mash add sweet butter, salt and pepper; break three or four eggs into the mass; stir it well; place it in a shallow and bake it; should the squash prove dry, a little sweet milk might be used to moisten it. Cooked in this way, it will prove what its name imports— marrow, indeed.

TURNIPS.— A turnip that has grown quick will eat well boiled whole with a leg of mutton. Most turnips have a strong taste and should be put into cold water when started to boil. To boil turnips to mash, they should be put into fair water; when done, take up and drain; mash with a wooden spoon or spatula; add salt, pepper and sweet butter, and serve up. When at the Fair of the Southern Central Agricultural Society, last fall, we learned from Col. Summer of South Carolina, the way to cook turnips, which every one that tries will get more than his subscription's worth for this paper. Peel turnips, and slice them, boil them in fair water, with the addition of a little salt; just before the turnips are done, add to the water a table spoonful of sugar to every quart of sliced turnips; take up and drain. Season with pepper and butter, and serve up for the table.

ONIONS AND LEEKS.—Many object to these vegetables, that they are strong and

taint the breath, but if onions or leeks are boiled in milk they will, leave no taint upon the breath. Onions that are to be fried, should first bo cut up in cold water; it extracts much of their spirit, and makes them pleasanter to the taste. Take them from the water, and drop them into boiling lard or butter. Season as they fry, with salt, pepper, &c.

SPINACH.—This is one of the most delicious of the whole tribe of the *greens* family. Wash the leaves carefully and drop them into boiling water, in which there as been a little salt put; ten or fifteen minutes will be enough to cook them. When done, take up and drain through a colander. Now season with butter, pepper and salt and lay over some slices of toasted bread and serve up for the table.

SALSIFY OR VEGETABLE OYSTER.—Wash the roots perfectlv clean, and drop them into boiling water; when done, take up and mash; add sweet milk and flour sufficient to make a batter. Season with salt and pepper and such other condiments as the oyster requires, and fry in butter. Another way in which they are very delicious is, to grate the root od as fine a grater as it will pass through; add sweet milk, just enough to cover it, and boil; when done, add flour enough to make a batter; season with salt and pepper; break two or three eggs in and stir the whole together; fry in butter or very sweet lard, and the resemblance to oysters is complete.

VEGETABLE SEASONERS.—Parsley, celery, thyme, sage, onions, garlic, and other seasoners should not be put into soup or stews until the soup is nearly done; chop fine, and put in five minutes before the soup is taken from the fire.

CURING HAMS.

To every 1000lbs. of hams, take eight ounces of saltpetre, two quart of molasses, and two quarts of salt; mix with water. After settling for two or three hours, before introducing the hams, rack off, and throw out the sediment from the bottom; cover the meat with brine, and repack once a week, changing the positian of the ham. In six weeks the ham may be taken to the smoke-room. After smoking, they may be returned to the brine, ond kept through the summer. If preferable the meat may remain in the brine, and be taken out and smoked as it is required for use. It will be found always in excellent condition, and is, when smoked, an excellent article.—*Ger. Tel.*

ON A PROFITABLE WAY OF STALL FEEDING CATTLE.

We are glad to say that the consideration of this highly important department of husbandry has attracted considerable attention in this country since we have brought some papers as to it before the Council Meetings of the Society in spring, 1852. We then, as well as since, collected a vast amount of statistics from many of the first feeders in England, Scotland and Ireland, whose reports of their experience were published by us in the journal, circulating far and wide, and diffusing sound, practical information, among many who previously knew nothing about fattening cattle, excepting the cramming poor brutes with almost unlimited quantities of raw roots and uncut fodder. We could, in consequence, particularise many instances of the improved system recommended by us being adopted, and that profitably and satisfactorily; and we trust to its being much more extensively followed. It is well adapted to all grades and circumstances of farmers—yes, from the very cottier with his pig, to the large farmer of capital, with his hundreds of splended oxen. All know—at least very few deny, the general necessity of good manure in raising grain; and it being plain, that without growing green crops, (both by home-made and foreign manure), the manure heap will be sadly deficient, it is clear to demonstration that stall feeding cattle, and the feeding of green crops with sheep, which are infinitely the best way of supplying the dung magazine, form the key-stone to the grand agricultural arch. Some whose very life and happiness are not to be found save in supporting a paradox, a dazzling conceit, a valueless bubble, will, notwithstanding, say that stall-feeding cattle wont pay; but the common sense of the thousands of intelligent "beef growers" who are daily extending the practice, will satisfy any disinterested person acquainted with the subject, that the system, properly conducted, *will pay*; that good feeding, properly managed, (avoiding alike surfeit and starvation) pays best of all Referring to our former papers on this subject, the accuracy of which every days experience confirms, we now beg to append to these introductory remarks, a communication which we recently made to inquiries on the subject, which, believing to be of interest, as we hope they may be of advantage to our readers generally, we now submit for public consideration:—

"I beg your persual of a paper by me on this subject, herewith sent, upon which my present remarks are in some degree based:

"In it Class 1, is the practice of feeding with raw food entirely. (1.) Mr. Littleboys's practice, and (2.) Logan Experiments. These instances may be passed by; for the system which excludes the application of partly cooked or heated food in the feeding of fat cattle, cannot in general, prove the most beneficial, and is not, as a general rule, consistent with either science, or extensive and accurate observation. I beg, therefore, to call your attention to my remarks on the (1) Yorkshire improved system, with partly cooked food. Taking it as a whole, it is as simple and efficacious a method as we have yet seen; and, therefore, we recommend it for adoption. The proportion of feeding materials may be varied a little, and that not only without detriment. but with advantage; thus, instead of using 5lbs. of grain and 2lbs. of linseed-cake, we would recommend 4lbs. of bean-meal, and from one-forth to one-half lb. of molasses per day; and instead of 10lbs. of chaff or cut straw, we think the cattle might be induced, from the sweetening of it by the molasses, to consume 16 or 18lbs. of cut straw. Thus as remarked in the printed suggestions referred to—"It is thought that the diluted molasses will induce the cattle to eat more cut straw than is practised in No. 1, or Mr. Huttons's plan. If the cattle will do so, they ought to be encouraged, and the proportion of water can be increased correspondingly, and the cut straw also—say, from 12 to 16, or 18lbs. per day, in two cooked feeds."

Green food has a tendency to purge feeding animals, and, therefore, the more cut straw that is consumed by them, the greater the corrective given to injurious looseness. Rape-cake, too, is of a laxative nature, and molasses prove also a laxative, and hence the preference given to bean-meal, which is the most binding for, and, therefore, the best corrective of looseness, from eating green food, molasses, and rape-cake. Besides, bean-meal is very nutritive it itself. Such materials, and 80lbs. per day of swedes will be quite sufficient to fatten to prime condition cattle weighing from 65 to 75 stones—in the course of from 12 to 14 weeks, if the cattle were proper when put to feed.

What will the cost of such extra food amount to per week for each beast? Say—

28lbs of bean-meal at 1¼d per lb,	£0	2	11
14lbs of rape-cake at ¾d per lb,	0	0	10½
3½lbs of molasses at 2d per lb,	0	0	7
Fuel and attendance,	0	0	6½
	£0	4	11

Or 5s. per week, 20s. per month, or £3 for extra food to feed cattle from 60 to 75 stone weight each in three months, with feeding not worse or dearer than the Yorkshire allowance.

Mr. Thompson, of Yorkshire, fed cattle, which gained beef at the rate of 7 stones per month, which would now sell at 49s. By such a system the largest quantity of beef will be got in a short time, at a paying outlay, with a saving of 80 out of 160 lbs. per day of swedes, or of 8,060lbs., nearly 4 tons on each beast in four months feeding. As to the value of the turnips and straw, that is paid to the feeder in the quantity and quality of the dung made.

The cheapest and simplest mode of providing the cooked food is as follow:—

Cook only once a day, say in the evening, when the cattle have been done up for the night. The boiling water being then ready, the process is simple and expeditious. Have a large stout wooden trough sufficient to hold the quantities of different kinds of food for the stock, beginning with 12lbs. of cut straw, and 4lbs. of bean-meal for each. The

straw, with the bean-meal, and some salt, should be laid in alternate layers in the trough; the rape-cake bruised small, and steeped for 12 hours; also the molasses, steeped and stirred well till dissolved, should be poured into the boiler when the water is coming to the boiling point, and stirred well while boiling till completely dissolved—say, from 15 to 20 minutes—then with a syphon, tube, and rose, the liquid in the boiler (or with a ladle) can be distributed equally over the chaff in the wooden box, and covered up close to cook till early next morning, when it must be well mixed with a three pronged fork, or the contents of the box be thrown upon a clean floor and mixed thoroughly with a shovel— one-half being thereafter divided out to the cattle, say at ten o'clock the other half put back, and closed up to keep warm in the trough for the afternoon's feed. The cattle should get alternately two feeds of swedes, 40lbs. each, and two feeds of the cooked mixture beginning with roots at 6 o'clock, morning—cooked food at 10 forenoon, swedes at 1 p. m., and cooked food at 8 o'clock afternoon, when they should be done up, a little fresh uncut straw put in their rack, and then left to rest and ruminate. In commencing with the molasses and cut straw, I would mix at the rate of 12lbs. of straw and ¼lb. of molasses, up to ½lb. of the latter, and 16 or 18lbs. of the former, if the cattle would eat so much when mixed as before explained. The calculation before made up is based upon data, as to which there can be no doubt. We have put down for molasses 2d. per lb., which would amount to £18 odd per ton, whereas it can be bought at Liverpool at £16. The rape-cake little more than half of the price of linseed-cake; yet, it contains as much nutriment, and its selling price in Dublin is £7 or ¾d. per lb., and the beans, at £12 per ton, amount to 1¼d. per lb., being the amount we have allowed for them; on the whole, the mode of feeding before explained seems to be simple, cheap, and profitable, the price of materials taken into account which has been tried, or can be thought of."

In referring to Mr. Thompson's experiments, on which he had fed on the improved system so as to gain at the rate of 7 stone of beef each in 31 days, we do not mean to say that this should be generally expected. The four cattle belonging to him and now referred to in this experiment, averaged to 6 stone each, and this, at 7s. per stone, makes 42s., and there being only 20s. to deduct for extra food for one month, leaves 22s. for profit, besides dung to pay for the turnip and straw. We refer to our papers on the subject of stall feeding, published in the Journal, edited by us, of date November and December, 1852, also to our suggestions on same subject, published in same Journal in December, 1853. In these articles we showed very clearly that in stall feeding cattle, the use of cheaply cooked or prepared food would pay well— that by means of such a system, cattle could be brought to prime condition in from 12 to 14 weeks—that they would not consume half the quantity of turnip, and would make a large quantity of valuable manure, one yard of which would be equal to three yards of mere swede turnip, and straw dung.

Cooked swedes ought not to be used in fattening cattle, but given sliced and raw. The carbonaceous and nitrogenous food ought to be given moderately warm, and partly cooked.— TH. HARKNESS.—*Irish Agriculturist.*

SOCIETY OF ARTS OF LONDON—PAPERS UPON AGRICULTURE.—HIGH FARMING.

December 6.—Mr. Mechi read his fourth paper on agriculture this evening, and, excepting the introductoty paragraphs and a few abridgements elsewhere, the following is a report of it:—

A fourth paper on British Agriculture.

There is something of stern admonition in our present food position. With an abundant harvest for which we have just returned grateful thanks, the prices of corn are enormous. I venture to assert, from my own experience, that we could grow more than all the food that is required by the British people; but it must be done by investment and improvement. The mere drainage of all the land that requires it would add millions of quarters of corn and much additional meat to our present supply. My own farm may be taken as an instance of greatly and amply increasing our food supply. I therefore purpose this evening to lay before you my own agricultural balance sheet, which is again highly satisfactory and remunerative, showing an advantage to me in rent and profit of about £750. I shall glance at the progress of British agriculture, and enter into some details connected with its internal economy, thinking that such information may be a useful preparative for those who, like myself, hitherto engaged in other pursuits, may be disposed to divert some portion of their capital to agricultural practice and amendment. I do not know any thing more rational and more desirable that the surplusage our town and city profits should find useful employment on the land. It is much needed.

The agricultural cry is always "but where is the money to come from for these improvements?" and therefore every landlord and tenant should rejoice at an increase of "apron-string" farmers and improvers, seeing that the inflowing of capital and intelligence diminishes rates and increases profits and comforts, in a thousand various ways. If I were asked "why so little town capital finds its way to agricultural improvements?" I should say, you have hitherto not held out to it the hand of invitation. Great landed proprietors with poor, unimproved and entailed estates, either from want of knowing that means for their improvement exist, or from a false delicacy as to borrowing the money, or from a disbelief or doubt of the improvements resulting profitably to themselves to any extent of the two or three existing companies, which have the means and legal powers to effect every necessary amendment, even on strictly entailed estates. I know a great many small land holders, whose property and tenantry would be equally benefitted by such investments.

In a nominal point of view, it would be highly desirable that some hundred millions of our surplus capital should be engaged in producing British food on British soil by British means and labor* rather than that the cash boxes of our capitalists should be crammed with bonds and responsibilities from every foreign nation and foreign undertaking, to the very casting of Russian cannon to be used against our own troops. I could readily point out how 100 millions could be at once profitably employed in agricultural amendment. But ere this can be done there is an immense amount of prejudice to be removed and self-satisfaction to be disturbed. I, then, venture to predict that in a comparatively short period we shall see every farm covered in with sufficient shelter for its stock, lighted with gas, its fixed steam engine, economising the costly labor of horses, and warming by its waste steam the various sheds. The food which the farm produces having done its office in the town will run back to restore the fertility which it had exhausted— our land will be drained and irrigated—the residences will be worthy of a more intelligent and more cultivated tenantry, rejoicing in pianos and librairies. The waste aud loss occasioned by misplaced buildings bad roads, and queer-shaped fields, will be corrected by the facile sale or transfer and intercharge caused by an easy legal registration.

If we have capital in the country—and who can deny that we have it in surperabundance?—let it avail to give to agriculture a higher and more dignified, more intelligent, and consequently a more profitable position. The clumsy appliances and prejudiced neglects of antiquated agricultural customs are not profitable. The men who now suffer, most in agriculture are precisely those whose ill-farmed, wooded, small, and undrained fields, and unimproved buildings, are slowly but surely absorbing the tenant's capital, binding him in poverty and discontent. It will be a happy day for the tenantry of this country, when their rents are doubled, provided that increase represents a proper interest for necessary improvements. This takes place in our towns and cities, why not in our agriculture?

I do attach much importance to the application of our town sewage to agricultural fructification. It is going on rapidly in

* By companies, or by an improved law of partnership.

various quarters; and I have been delighted to find that my intelligent and calculating friend, Mr. Samuel Brooks, of Manchester, has placed at the disposal of the managing council of that city the munificent sum of £1,000 to be expended in prizes, or means to obtain the best mode of applying the sewerage of that city to the fructification of the surrounding country. My own experience in this matter, with two miles of pipes on my farm, convinces me that the engineering difficulties are perfectly insignificant, and that a nation which has passed its iron railways through every man's house and property, "nolens volens," for a useful general purpose, will not be deterred from acting similarly in the great question of feeding the British people. One thing is quite certain, that you must convince landlords and tenants that manure liquified is better and more available than solid manure; this it will take some time to do; and you must also convince engineers that they do not at all know at present the greediness of soil for manure, for if they did, a recent writer in your Journal would never have made the mistake of over-estimating some 30 times the area that would appropriate the sewage of the metropolis. Our excrement is literally our food, disagreeable and disgusting in form and smell, but unaltered in alimentary value. injurious to man, it is vitality to plants; and much of the luxuriant vegetables that grace our table are a mere reembodiment of our own excretæ. The time is gone by for false delicacy in these matters—we must entertain this great privy question. The Chinese would be starved did they follow our exemple; but that wise people economise with rigid care that which they alone depend upon for the reproduction of their food. I am informed they do not, as we do raise fat cattle at a loss with purchased food to produce manure for the growth of corn.

In order to learn the extent to which our food might be increased by the application of town sewage, let us consider that 300 sheep on a farm of 100 acres would keep it in a high state of fertility, and that therefore, reckoning 450 men, women, and children, as equivalent to 300 sheep, our population would fertillise 500,000 additional acres. I say nothing of dogs, cats, parrots, canary birds, and horses; they consume largely, each horse consuming the food of eight men. Then you have enormous supplies of waste blood and offal, and a thousand other things that should add millions of quarters to your food. The mere disintegration of your alkaline granites by the abrasion and trituration of traffic—the carbon, or smuts from your roofs, which is but too perceptible after a shower, are all sources of fertility. Amongst the coming improvements in agriculture is—

Cultivation by Steam.— On public grounds, I expended some money in the construction of Mr. Romaine's machine. Our trials with it were only partially successful we had to much velocity, and too little steam. The act of raising the soil must evidently be a slow steady motion. Enough, however, was shown to prove that cultivation by steam will soon be the order of the day; several parties are engaged upon it, and I have a strong impression that Mr. Usher's of Edinburgh, will not be one of the least successful. I find there is one at work in Germany, of which a drawing lies on the table for your inspection. I think Mr. Romaine's has an advantage by the attachment of horse-power in the case, or undulating surfaces; but I need hardly tell you, that it requires an immensity of time and no small investment of capital to bring new inventions to perfection. The Royal Agricultural Society of England have very properly offered a premium of £200, which will no doubt develope many attempts. When we consider that the farm horses consume the the produce of nearly one-fourth of the arable land of the country, and when we calculate for how few hours daily they can be kept at work, the whole question is one of great importance to agriculture and to the nation. I hope, now that agricultural statistics are becoming acceptable, that we shall have comprehensive details of the number of acres undrained and otherwise imperfectly farmed, amount of steam power employed, number of acres under lease or tenure, customs of valuation to incoming tenant, extent of irrigation, number and position of cottage residences, and other details necessary to form sound conclusions as to the present condition of British agriculture. As there are, no doubt, several of this large and influential meeting who may hereafter desire to enter upon British agriculture, I think it will be useful to lay bare its internal economy in a popular and simple form, unencumbered with the tedious details. Farming, although a most agreeable occupation, is notoriously a slow business, attended with small profits. Fortunately it is so, otherwise our towns and cities would be comparatively deserted; yet, how desirable it is, that the surplus profits of trade, commerce and manufactures should flow into the lap of poorer Ceres, to develope her powers and increase her riches. One thing is quite certain, that if high farming is slow, unimproved farming is ruinous.

There is nothing more difficult than to obtain from farmers a statistical detail of the cost and return of the various branches of their occupation. Comparatively few keep books, nor do they appear to have considered it necessary to investigate details. By-the-by, I know a great many tradesmen who have much to revise in this respect.

Farming Capital.—I may, perhaps, be permitted to say generally, that to farm 400 acres of land you should have at least £5000 or £12 per acre; but if you are to carry out subterranean irrigation and all the modern improvements, you will want £6000 to £7000, irrespective of landlord's improvements for building, drainage, &c. You will then be in a condition to avail yourself of opportunities, to buy when you see anything cheap, and to sell when things are dear. I assume you have judgment and a thorough knowledge of your business in all its details, for unless by yourself or others acting for you the most is made of every thing, you must expect to lose your capital. There always are in every market men of extraordinary powers, ready to absorb the injudicious or uninformed. Look at my own live stock account; if five per cent mistake were made in buying and selling it would derange my balance sheet to the extent of £240.

Farm Profits.—As a general rule, 10 per cent. on the capital invested is considered a very good profit in farming. There are thousands who do not realise half of it. Here and there a man of extraordinary powers and great personal economy accumulates a large fortune, but it is the exception, not the rule. A return of four rents per acre is generally considered satisfactory; the average of the kingdom is, I think, less. In cases of improved farms it is sometimes five rents or more. The necessity for diminishing the fixed expense by an increased produce is illustrated by the statement of a first-rate north-country farmer, who says that, if he spends £1 per acre, or £600 a year for artificial manure, he makes a profit; if he omits it he makes a loss. If stock is too dear, or you are short of capital, plough in green and root crops, particularly on heavy land.

Disposal of Capital.—As a general rule, your capital will be absorbed as follows:—

Valuation.....	£1	10	0	
Live stock.....	2	0	0	to £6
Implements.....	1	0	0	
Labour.....	1	5	0	to £2 5s.
Seed.....	0	10	0	
Tradesmen's bills..	0	5	0	
Rent.....	1	10	0	
Poor rates, tithes, &c.	0	10	0	
Artificial manure..	1	0	0	
Farm horses.....	1	0	0	
Personal expenditure				
	£12	0	0	

Farmers have generally the advantage of house-rent free, although too many of our farmeries are entirely unfit for a tenant of capital and intelligence, who will seldom enter upon such occupations. Supposing we take a farm of 400 acres on the four-course for mixed husbandry system, we shall find that one-half the farm produces nothing in the way of profit, but on the contrary leaves a considerable charge against, or upon the remaining half which is in corn. For instance the horses consume one quarter of the farm, the sheep and cattle consume the other quarter; and you will find, if you give your live stock much oil-cake or corn, that the whole of the expenses of one half the farm have to be paid by the other half, which is in

corn—and whether that corn is at 40s. or 80s. per quarter, makes a very serious difference to the occupiers:—

Example— 400 acres (manure, fences, buildings, roads, and waste, for which the tenant always pays rent) really 380 acres.

50 acres in clover.
30 acres in beans.
20 acres in pasture.
40 acres in tares, rye-grass, &c.
50 acres in roots.
100 acres in wheat.
90 acres in barley and oats.

380

It follows that your 190 acres of corn have to pay two rents, two tithes, two rates, two manual labours, two seedings, two tradesmen's bills, and merely make a polite bow to the other half of the farm for the manure left, by the consumption of its crops. Now, it seems very ungracious that when you have grown a splendid crop of turnips, at an expense of £7 to £10 the acre, the sheep are to consume it, leaving you nothing but the price of the hay and cake you gave them with it; but it is a system that can't be avoided until you find some cheaper sources of manures. The man that does not feed off his green crops, but attempts to steal extra crops of corn, soon impoverishes the land, and himself too. All our most successful farmers are large purchasers of cake and artificial manure. But if manure is so costly to produce, how important it is that not one drop or atom of it should be wasted! or allowed to run down the ditches or roadsides with every shower. Amongst the evidences of enlightenment and improvement of the present day is the introduction of covered homestalls or farm-yards, where the animals and manure are both sheltered from adverse weather. This is one of the paying moves in agriculture.

But to return to live stock, a reference to my balance-sheet will confirm what I have stated, After paying for purchased food, shelter, and attendance. the sheep and bullocks left a mere nothing for the cost of producing some 70 acres of fine roots and green crops. Owing to my system of managing live stock, I never have diseuse; but when I find insurance companies charging 20 per cent. for insuring animals! it is evidence of ruinous mismanagement, and would form a charge on my farm of £200 per annum. In pastoral and dairy cheese districts where a suitable soil and climate combine to produce a natural fertility, live stock may be reared, or sustained with advantage on the natural produce, and I believe in parts of Scotland the turnip is produced more cheaply and nutritively than elsewhere, owing to the climate; but my remarks will to a great portion of this kingdom, especially where the rain-fall is under 26 inches, and the climate airy and suitable for the cereals —as on the Eastern and South-Eastern coast. In such districts the retention of poor worthless pastures is a great mistake, and they should give way to a mixed husbandry. On the suject of live stock, I once asked a Lancashire farmer who consumed £500 of cake annually, how he charged it "Oh!" said he, "I charge half to the bullocks, and half to the manure." As a general rule, when we are buying sheep for fattening, we pay 1d. per lb. more for them than we could realise for the same weight when fat. This is the penalty we have to pay to the breeder, who has to provide the bone and offal in the animal. Breeding is not all profit, for it robs the corn side of the farm, unless much purchased food and manure is used to restore the balance; but to return to my 400 acre farm. Now I have no doubt this statement will startle many practical farmers, and will raise a storm of indignation amongst stock feeders and stock breeders; but the naked truth is best told, which is "that live stock are necessary evils, mere manufacturers of manure, and unattended with any direct profit." That if you give them cake and hay whilst feeding off your turnips and green crops, the return for these green and root crops will be "nil," and their cost must be charged to the corn crops against the manure.

I am firm in this opinion, not only from my own extensive feeding, but from an extended observation, as well as by the undeniable proofs recorded by Mr. Lawes in the "Royal Agricultural Society's Journal." It is a want of this knowledge or belief that leads to so much vexation and disappointment. I remember receiving an inquiry from a novice in farming, how much the bullocks should leave for his root and hay. I told him if he gave them much cake, he would get nothing for his roots, and about two-thirds the market value of his hay. He evidently was not prepared for this, and suspected foul play. He has since retired from farming in disgust. Another correspondent wrote that he was about to prepare for the accomodation and feeding a large number of pigs, as a matter of profit. I told him the only profit he would get would be the manure, which would cost him a loss of 10 to 20 per cent., including attendance, casualities, &c. Of course, he thanked me, and gave up all idea of making a fortune by pig-feeding. The same remark applies with increased force to poultry, which should only be in sufficient number to consume the waste corn. Now there is nothing loses so little as a pig, because he makes a quick return; and you get paid meat-price for the skin, which is not the case with other animals; his offal is also valuable. I find, with a very extensive practice, that with fine heavy barley at 30s. per quarter, and pork at 6d. per lb. net, pigs will "clear their teeth," or pay for their food, leaving attendance, housing, and casualities, as a charge against the manure. This agrees with the Suffolk saying, that a bushel of barley, 56lbs., will make a stone of pork (8lbs) For fattening pigs, nothing beats one-third pea-meal, two-thirds barley.

CULTIVATION OF RYE.

The *N. Y. Evening Post* calls the attention of its readers to an article in the *Boston Cultivator*, and especially to the value of rye straw, which it considers sufficient to pay all the cost of cultivating the crop. The *Post* thinks the writer in the *Cultivator* mistaken concerning the value of rye as food, its gluten being much less in proportion than that of the wheat, and its fat forming element being but little if any greater. The *Post* also thinks that the amount of matter removed from the soil by rye is as great as that by wheat or corn, though such exhaustation may be avoided by the use of unbleached wood ashes.

"Next to Indian corn, no cereal is of so much importance to this section of the country as rye. It differs from wheat in its adaptation to soil. The former succeeds best on a soil which contains so much lime as to give it considerable tenacity. The latter seldom does well on such a soil, but flourishes on those of a more silicious and porous character. It is well adapted to the light soils of New England, while on the slate loams of the valley of the Hudson and other similar localities it is quite at home. The value of the crop in that neighborhood is not fully appreciated.— The great requisite in regard to its culture is that the soil and subsoil be properly drained.—It cannot bear cold water about its roots. The crop can be cheaply raised. It requires but little preparation of the soil, though the yield is in proportion to the goodness to the land and the favorableness of the season—ranging from five to forty bushels to the acre. It is sometimes effected by blight or mildew, but less frequently than wheat, and on the whole is comparatively a sure crop.

The value of rye per bushel does not differ much in the eastern markets from that of northern corn. The straw constitutes an important item in the advantages of its cultivation. It is worth in this market an average of $15 per ton. A fair crop, say twenty bushels to the acre, will give a ton of straw to the acre. We are informed that two tons per acre have been obtained. The straw is used chiefly as bedding for horses; but among the Germans of Pennsylvania, who generally understand the economical management of horses, the grain is ground and the straw cut, and the two mixed together forms the principal food of those noble teams which always attract the attention of strangers. The Germans, too, They make use of rye in feeding themselves. are fond of aye bread, and say it is stronger than from wheat. But good rye bread is no despicable food in the best of families.— When made from good sweet grain, properly ground and bolted, and the proper skill used. In all the manipulations, it is not only

wholesome but palatable; and city bakers who make it right dispose of large quantities. It was not so great a hardship as some suppose, that our New England ancestors were chiefly confined to 'rye and Indian' for breadstuffs. According to some analysis the proportion of nitrogen (the muscle forming principle,) is nearly the same as in average samples of wheat. Rye bread contains more sugar and keeps moist longer than wheat bread.

Rye is not a hard crop for land, though land may be exhausted by it. Grass grows far better after it than after oats, and even better than after any grain except barley. The proper time for sowing it is the same as for winter wheat—the fore part of September.—Pasture land, or that from which a crop of hay has been taken the present season, may be used for it. It is better to plough it as soon as practicable, in order that the soil may become partially decomposed befose sowing the grain. Light land ploughed well once, may be so worked with the harrow and field cultivator as not to need another ploughing. Six or seven pecks of seed to the acre is the proper quantity. There is considerable difference in varieties of rye. A variety called the *muticole*, introduced from France several years since, was unusually productive, but was not thought quite as good for bread as the white rye.

On dry ground, not likely to heave by frost, clover and grass seeds may be sown with rye. But where the ground is not well drained, there is a liability to winter-killing, and in such situations it is better to sow the clover and grass seeds just as the snow is going off in spring."

Great Crops.—In a late visit to the farm of Ephraim Brown of Marblehead, we were not a little surprised at the large yields of various kinds of crops which he obtains, from land which a few years since was rated at a low price, and only used as a common pasturage. The track is called Marblehead Creek. It is almost an island, forming the eastern shore of the harbor, but joined to the main land by a low beach. It contains 240 acres. The soil is what would be called *hard*—the solid rock, which form the basin, crops out in many places, and the debris of of this, and granite boulders are scattered over the surface. Naturally, the aspect of the place was rough and forbidding.

Mr. Brown's first operations were of course expensive. But the first crops showed that the soil was strong, and encouraged him to go on. He has now about sixty-five acres enclosed and brought under the plow—exclusive of forty acres at one end of the tract, which forms a seperate farm, and is leased. Of the sixty acres, about forty are annually in grass, and the remainder in vegetables and grain. This year he cut one hundred tons of English hay, which is rather less than an average.

Four acres of cabbages—4000 heads to the acre. They were of the large drumhead kind, some of the heads weighing from 30 to 40 pounds each.

Four acres of onions—all gathered—yield 2400 bushels.

Four acres of purple top Swedish turnips, average 900 bushels to the acre.

Two acres of carrots, 20 tons to the acre, of 55 pounds to the bushel, the legal standard, 730 bushels to the acre.

Five acres of winter squashes—four of the marrow variety, 6½ tons to the acre—one of a cross variety between the marrow and India, 13½ tons to the acre.

These are not maximum yields. A half acre of Mr. Brown's carrots has been ascertained to yield at the rate of over 1000 bushels to the acre.

Mr. Brown farms for *profit*. We shall reveal no business secrets, but are allowed to say that the entire sales for the past year from the ground we have described, will overrun $7,000.

ON THE MANUFACTURE OF FISH MANURE. At the last sitting of the Imperial and Central Agricultural Society of France, Messrs. Payen and Pommier presented their report of the examination made by them, on behalf of the Society, of the works at Concarneau, where Messrs. De Molon and Thurneysen have established a manufacture of fish manure on the same principle as that formed by them three years since on the Island of Newfoundland. We extract from that report, presented by M. Pommier, the following passages which appear to us deserving of the serious consideration of agriculturists and others interested in the largest possible developement of our agricultural capabilities.

"As soon as his younger brother was established at Newfoundland, M. De Molon, who had secured the co-operation of M. Thurneysen, was desirous of having, in France also, a similar manufacture, which, under his immediate inspection might enable him to give greater efficiency to the means of manufacture, and to afford to all a practical confirmation of facts, the importance of which have for a long period been the settled conviction of his mind. He therefore established a factory at Concarneau (Finisterre), between L'Orient and Brest.

"At your sitting of the 3rd of July, you appointed M. Payen and myself to visit this factory, and I now present to you the results of our investigation.

"Concarneau is the chief place of the chief place of the Canton, situated about 24 kilometres from Quimper. This place is easy of access from many points of the high road from Nantes to Brest, by good local roads, made about ten years since.

"This little city, which scarcely contains 2,000 inhabitants, is situated on a rock in the middle of a bay formed by the ocean, in which it has a good port. Formerly the only access to it was by a ferry-boat; but now on the north side there is a bridge, whilst on the south side it is still accessible only by the ferry or other boats.

"The population of Concarneau are almost entirely fishermen, and from 300 to 400 boats are annually employed in the Sardine fishery. The curing of the fish is almost the only employment of the people.

"M. De Molon has fixed his establishment at the bottom of the port, and the boats load and unload under the very walls of the factory. When in full work it can manufacture 5,000 kilogrammes (upwards of four tons) of fish manure par day, in a perfectly dry state. This quantity represents about from 16,000 to 20,000 kilogrammes of fish or refuse of fish in a fresh state.

"M. De Molon obtains for it all the refuse of the fish-curing establishments of Concarneau, as well as those of L'Orient; besides all those coarser kinds of fish which were formerly thrown again into the sea, or left upon the quays and beach of Concarneau, to the detriment of the public health.

"The factory building is constructed entirely of poplar boards, in the most economical way; and the following is the apparatus contained in it for the manufacture of the of the fish manure:—

"A steam-engine of ten-horse power, and a steam-boiler of eighteen-horse power; two double coppers, for cooking the fish by heat, and hung on gudgeons; twenty-four lever presses, to press the fish after cooking; a rasp, similar to those used in the beet-sugar manufactories; a large stove, heated by one of Chaussenot's calorifiers; a conic mill, similar to a coffee or gypsum mill.

"The following are the details of the different operations in which these utensils are employed:—

"The fish or refuse is first put into the inner receptacle of the boiler, which contains about 500 kilogrammes*. The charge being completed, and the copper hermetically closed, a jet of steam is introduced between the outer and inner sides, heated about 3½ atmospheres. The steam circulates between the two sides of the boilers, which are only about two inches apart, and into a tube about eight inches diameter, placed upright in the inner boiler. An hour suffices to complete the cooking; when, by an easy movement, the copper is made to turn upon the gudgeons, the steam escapes, and the cover being removed, the cooked fish falls on the floor, and is immediately conveyed by the workmen in baskets to the presses, which are placed near the coppers.

"Considerable difficulty was experienced, at first, in contriving to submit the cooked materials to the action of the presses, without losing the most valuable parts; but this difficulty has been overcome in the following manner:—

* One of the coppers would hold 800 to 1,000 kilogrammes.

"Under each press is placed a cylinder of iron, about 16 inches high and 12 inches in diameter. This cylinder, strengthened by four iron hoops, is pierced full of very fines holes. The cooked fish is put into this cylinder, which is placed over a wooden plate adjusted to its interior circumference. The cylinder being filled to the top, another wooden plate is placed upon it. A weight or two is put upon the plate and when all the cylinders are charged, one of the workmen turns alternately the screw of each press. In proportion as the pressure takes effect, the water and oil contained in the fish are seen to drain from the holes in the cylinder. These liquids flow through troughs placed beneath into a common reservoir, under which are casks, so arranged that the overflow of one is received into the next, and so on till the whole are filled, without any other trouble. After remaining some time, the oil swims at top, and is collected into barrels, and placed in the vaults. The average quantity of fish-oil thus extracted, amounts to nearly 2½ per cent. the weight of the fresh fish.

"When the cooked fish is pressed sufficiently, the presses are loosened, the cylinders raised and turned upside down, in order to draw off the liquids that may have accumulated on the surface. Then, by striking the lower wooden plate, the pressed fish drops from the cylinder in the form of two compact cakes, each about four inches in thickness. These cakes are then taken and placed in the hopper of the rasp, which, being worked by the steam-engine, soon reduces them to a pulp. This is conveyed by children to the stove, which occupies the first storey, and is about 60 feet long and 16 feet wide. It is divided into five compartments of about three feet wide each. Along these are placed 20 boxes, 39 inches long by 34 wide, with a bottom of coarse cloth. On these are piled four other boxes to each, making in each compartment 100 boxes, or 500 for the whole stove.

"An opening, closed with a moveable board, at each extremity of the stove, corresponds with each of the five storeys of the compartment, and in the interior of the stove each series of boxes is placed upon boards. When one of these boxes is charged with the cooked fish, it is placed in the stove at the opening referred to above. A second drives it forward, the third the second, and so on, until the whole 20 are placed in the compartments. A board is put over the whole, and a second tier is driven in, in like manner; then the third, fourth and fifth, when the compartment is closed. This operation of charging the whole stove occupies about two hours.

"A current of air, heated to about 60° or 70° from Chaussenot's calorifier, and drawn by a draught chimney, circulates through these five compartments, in proportion as each of them is charged with the boxes of fish. As soon as the last tier is inserted, the first, which is then dried, is withdrawn, and fresh tiers are placed. The operation is very simple.—A child placed at the upper end of the stove, places the newly-filled box, which pushes, without any great effort, the whole series of boxes placed *seriatim* on the plank, and drives out at the lower end, the first of the 20 boxes of dried matter, which is received by another child. Another box is then introduced, which performs the same operation, and so on, until the whole of the dried boxes are removed and replaced by the fresh; the workmen or children being protected from the heat, which is confined to the interior of the stove, and being able at the same time to communicate with each other respecting the work by means of the compartments, which serve to convey the voice.

"This stove is worthy of all your attention, as forming one of the most important branches of the system of M. De Molon. It dries quick and with regularity, expending comparatively but little fuel, 100 kilogrammes of charcoal per day, being sufficient for heating the calorifier. The putting in and withdrawing the materials, subjected to the action of the heat being all exterior, the workmen suffer nothing from the operation; and we have shown you with what ease the continuous use of the stove is rendered available.

"As the dried matter is withdrawn from the compartments is is laid on one side upon a floor, from whence a child, by means of a shover, throws it into the hopper of the mill, by which it is reduced to powder perfectly dry and fine. The specimen of the powder now presented to you, was taken from under the mill.

"From the mill, it is put into sacks or barrels for sending away at the instant, in order that no opportunity may occur for introducing extraneous matters. The proportion of dry and pulverized manure obtained is equal to 22 per cent. of fresh fish.

"For all the processes, they employ in the establishment of Concarneau only six men, at 1f. 25c. each per day, and ten children, who are paid from 50c. to 60c. per day. With these, without night work, the manufactory can turn out from 4000 to 5,000 kilogrammes (nearly five tons) of dry manure, which represents nearly 18,000 to 20,000 kilogrammes of fish, or refuse of fish, in the natural state.

"By working at night, which will take place next season, after a more regular and complete arrangement for obtaining the fish, the establishment will produce in 24 hours from 8,000 to 10,000 kilogrammes of manure. M. De Molon estimates the number of working days at from 200 to 230, during which the fishermen can work in the course of the year. If we reckon only 200 days, the establishment of Concarneau would, therefore, produce 1,600 to 2,000 tons of manure per annum. This would be sufficient to dress from 5,000 to 6,000 hectares (or from 12,500 to 15,000 acres) of land, at the rate of 300 to 400 kilogrammes per hectare. This quantity, according to the return in dry manure of 22 per cent. of the weight of green fish, represents an annual fishery of from 9,000 to 10,000 tons of fish.

"The Sardine fishery, and the refuse of the manufactories formerly thrown away, may nearly furnish half this quantity; but M. De Molon suggests a means which affords a certainty of obtaining, at Concarneau, still greater quantities of fish than are stated above.

"At the time of the wars of the Empire, during the blockade, cod-fish was extremely scarce in France. There was then caught on the coast of Bretagne a fish called a "merlue," a species of cod, which was dressed and salted, and sold in immense quantities for the use of the peasantry. There are periods when these fish are met with in shoals, but at present the fishermen do not go after them, because they have no sale for them; but Providenee directs us thither now, that we may take the fish and make use of them in another manner.

"The establishment at Concarneau, with the means of fishing that Messrs. De Molon and Thurneysen intend to procure (namely, 60 or 70 well-equipped boats) might, therefore, by doubling their present apparatus (which has been foreseen and provided), quadruple the quantity of dry manure that is now produced, by working only ten hours per day.

"We have stated above, that the personnel of the establishment consist of six men and ten children; we should add, that the consumption of coals is 230 kilogrammes (rather about 4 cwt.) per day. Of this, 130 kilogrammes are consumed by the steam-engine, and 100 kil. by the Chaussenot calorifier, which heats the stove. We should also add, that the fish oil extracted by the presses, is in the proportion of 2½ per cent. of the live weight, and that it sells readily at from 80c. to 1f. per kil. (or from 4d. to 5d. per lb.) Lastly, the manure sells at 20f. per 100 kilogrammes (or about 9s. per cwt.) at the port of shipment. We have also ascertained by analysis, that the fish manure contains 12 per cent. of azote, and 22 per cent. of phosphate.

"The most competent authorities in England, estimate that the cultivator ought not to pay more for azote than 5½d. the English pound, or 1f. 26c. per kilogramme; and for phosphates, not more than 1d. per lb., or 23c. per kilogramme; for phosphoric acid 3d. per lb., or 69c. per kilogramme. Let us now take these prices and apply them to the fish-manure, and we shall obtain the following result of 100 kilogrammes:—

	fr.	ct.
12 kilogr. of azote, at 1f. 26c.	15	12
22 " phosphate, at 26c.	5	06
Value	20	18

You have seen above, that M. de Molon

had fixed the price of the fish-manure at 20f. the 100 kilogrammes. On the same principle the price of guano might be ascertained thus:—

	fr.	ct.
10 per cent. of azote, at 1f. 26c...	12	60
14 " phosphate, at 23c..	3	22
Value.....	15	82

"According to this, 100 kilogrammes of guano is worth 4f. 30c. less than 100 kilogrammes of fish-manure, and it is sold at from 8f. to 10f. more—that is to say, at 28f. to 30f.—at Havre. In other words, the fish-manure will produce the azote to the farmer at 1f. 26c. the kilogramme, and the phosphate at 23c. the kilogramme; whilst in the form of guano, the azote costs 2f. 20c. the kilogramme, and the phosphates 50c. the kilogramme. This shows the importance to the farmer of the introduction of fish manure.

"The details of the factory, as taken from the books of the establishment, have convinced us that the manufacture of fish manure is an industrial operation which must yield great profits upon the capital engaged in it—a circumstance which we refer to, only because it imparts an incontestable character of permanence to an enterprise, which must necessarily bestow immense advantage upon agriculture, whose interests always occupy the first place in the sympathies of the Imperial and Central Society.

"As we have stated above, the factory at Concarneau was founded by Messrs. de Molon and Thurneysen only as a type of those which they may establish, not only on other points of the French coast, but also abroad. Already Messrs. de Molon have, at Newfoundland, a manufacture which can, in its present condition, furnish annually, from eight to ten thousand tons of manure; but they propose, as well on that coast, as upon others in the North Seas, to form large establishments, which may, according to their estimates, supply to our agriculture, a quantity of fish manure at least equal to that which is extracted from the Peruvian Isles in the form of guano—that is to say, from 300,000 to 350,000 tons per annum.

"The quantities of fish which are enclosed in certain seas at differents periods of the year, are so great, that they dare not state the amount for fear of being accused of exaggeration; and yet the imagination, in dwelling upon the immensity of the ocean, may readily figure to itself the innumerable quantities of animals which it encloses, and which Providence, as we have already remarked, has placed within our reach to afford the means of satisfying the ever-increasing wants of humanity.*

"The committee, whom the society has deputed to examine the memoir of M. de Molon, will tell you, gentlemen, what amount of azote and phosphate can be furnished by the quantity of fish-manure, which they propose to manufacture and introduce into France. Our object here, is to give you an account of what we have seen and learned, in the visit you have directed us to pay to the factory at Concarneau.

"There we have been able to verify, that the facts advanced by M. De Molon were perfectly correct, that the agricultural population of the country, who have made trial of the manure, see in it, on their part, the prospect of an immense progress in the production of their fields; and that the maritime population find in it also, a source of employment and comfort, hitherto unknown to those countries, where the fisherman has until how, had only one season, the Sardine fishery, for the employment of his industry.

"You will also, like ourselves, be struck with the projects of Messrs. De Molon and Thurneysen, in a maritime point of view; the coast-fishery, and that, above all, of the north seas, being the best nursery for our naval marine.

"On the several accounts, it appears to us that the Imperial and Central Society ought to take into very high consideration, the facts which have been brought before them on the subject of fish-manure; and it is as an instruction which ought to be used in that examination, that we pray you to send the present report to the Special Commission, which is to make a general report to you, upon the important works of Messrs. de Molon and Thurneysen.†"

HORSEBACK EXERCISE.

Riding on horseback is, perhaps, of all others, the most manly, elegant and efficient form of exercise. In the first place, it cannot be taken without being out of doors; then it enables you to breathe a larger amount of fresh air than if walking, because you pass through a greater space in less time, and consequently a greater number of layers, or rather sections of fresh air, come in contact with the less fatigue.—Another advantage is, that all the museless of the body are exercised in moderation, and, to a certain extent, equally so. And then again, while every step forward gives you a fresh draught of pure out-door air, the mind is entertained by every variety of objects, new things being constantly presented. The only thing to be gaurded against, is a felling of chilliness; this is essential, for every chill is an injury; wheather a man be sick or well, a child must necesarily be succeeded by a fever, and fever is disease,

Horseback exercise, to be highly beneficial, should be active—a "hand-gallop," or a trort; and, if practicable, a different road should be travelled every day, so that the mind may be diverted by novelties, and thus compelled away from bodily ailments.

The English, as a nation, are a stout, robust hearty race. The nobilty have a long list of names who have lived to the age of seventy, eighty, and even ninety years; but horseback exercise with them is a national amusement; many of them make a ride on horseback as much a matter of course as a daily dinner. Almost the only gentleman seen on horseback in New Orleans, is the English merchant, showing the power of a national habit, and its influence abroad, as well as at home.

If parents could made be comprehend the full advantages of a constant breathing of pure air to their childern, and be at pains to impress their young minds with its high importance; were they to pay more attention to their physical training, requiring them to take active exercise, four hours every day, on foot and on horseback, there would be some probability that, notwithstanding the heat and impurities of a city atmosphere, those children would grow up in healthfulness, and live to a good old age, instead of paleing away, as they do, long before their prime, growing prematurely old, from a constitution blasted in the bud.—*Journal of Health.*

AMERICAN AND EUROPEAN CHARACTERISTICS.

The North British Review contain an article on British and Continental Characteristics, intended to contrast the more tranquil character of the Celtic and Germanic nation with the feverish and bustling temperament of the British population. It calls the latter to pause a while in their breathless and unceasing race and consider whether or not they might with advantage to body and soul, take a leaf out of their neighbor's book, or in other words, transplant into their own life and character some

* "The produce of the cod-fishery of Newfoundland reckoning the fresh fish, amounts annually to 1,400,000 tons, of which about 700,000 tons are made use of, and 700,000 tons cast, in pure loss, into the sea or left on the shore. If these 700,000 tons of refuse of the fish, were collected, pressed, dried, and pulverized, they would produce more than 150,000 tons of powder, containing all the properties of the best Peruvian guano.

"Copy of a correspondence from the United States:—

"'All the south portion of the State of Connecticut being bounded by the Long Island Strait the agricultural of that portion of the territory are prodigiously favoured, in consequence of the rich manure procured by the immense quantity of fish which are annually caught in the Strait during the month of May. The nets used in this fishery, are so large, that they contain at once half a million of fish called "white fish." This fish weighs from one to two pounds each. I have sometimes even seen 800,000 taken at one single draught of the net. This fish commonly sells from 50 to 75 cents the thousand. 5,000 fish are the load of a cart drawn by a bullock. It is sold upon the spot to the farmers, who come for them, and convey them for many miles round, to be made use of immediately. Still more frequently, they make a compost of them, with turf, or peat, and straw. This compost is used in several kind of culture.'

† "M. De Molon has united to his manure manufacture, that of Sardine oil, according to the Appert process. We mention this fact to you only as an accessory, and to make you awars up n what a vast scale Messrs. De Molon and Thurneysen have developed their usual enterprise."

of the peculiarities of their Continental brethern.

It needs but a few alterations and adaptations to the circumstances of American life and peculiarities of American character, to make the lesson of this article appropriate to ourselves, and to incline us to some uncomfortable misgivings lest some of our aims and exertions may be sadly misdirected,—lest we may be sailing on a wrong tack, and pursuing a course widely differing from that which wisdom would dictate to us to pursue.

American themselves are ready to acknowledge that the extremes of character in civilized man, are to be found in Asiatic and in the American,—the silent, dignified, placid and stagnant Mussulman,—and the striving, pushing, restless and progressive Yankee. Between these extremes lie the easy and joyous Celt, generally contented with the passing, but often contented with too little; the stationary and phlematic German, cautious and unaspiring, frugal and complacent; the Norwegian much like the German, the Swiss with a little more energy and aspiration, and finally the British, only a few degrees less ambitious, insatiable, unresting and discontented than their western offspring. A Turkish official being asked as to some statistics of the city and province in which he had long dwelt as a man in authority, told his English inquirer that it was unprofitable to inquire into such things—that the thing he had asked of him was both difficult and useless—that though he had passed all his days in that place he had counted neither the houses nor the inhabitants, and as to the commerce of the city, or what one man loaded on his mules or another man stowed away in the bottom of his ship, that was no business of his. He advises his friend not to ask after the things which concerned him not—not to wander any longer from country to country until he could be happy in none—and, if he would be happy, to believe that there is no God but God, and that He that created the stars and comets, spinning round in space, will direct and guide them all aright. The Canadian Frenchman, whose roofs are defective, whose fences are inefficient; and whose whole establishments bears the marks of indolence and carelessness, calls his more active and enterprising neighbor, American or English, a miserable fool, because he toils from morning to night, is up before daylight and at work after dark, and asks contemptuously what a man needs more than enough, and puts with great emphasis his wonted poser, "Can a man eat with two spoons?"

In such extreme cases there may be content where content ought not to be; but among almost all European nations there prevails a rational and well-founded satisfaction with moderate means, which may well make us surpect that, as compared with our hurried and turmoiling existence, they have chosen the wiser and happier part. In Norway for example, the inhabitants may be said to form one vast middle class. There is ao great wealth, and no absolute destitution; peasants and proprietors live on together much in the same style; there is much comfort but little luxury; there is general equality and general content. Their existence glides on from the cradle to the grave, broken by no tumultous crisis, embittered by no pressing anxities, shortened by no fierce competitions, goaded by no wild ambition, darkened by no dismal failures,—but happy in a continuous activity, moderate in its aim, and sure of its reward. The Swiss farmer, too, appears to enjoy one of the happiest of human lots. "Educated, industrious, pious and patriotic, the citizen of a free state small enough for him to feel an appreciable unit among its inhabitants,— in a situation which nourishes no ambition that he may not readily gratify, and yet exempts him from those gloomy cares and forbodings as to the future, which wear away the lives and sadden the domestic circle of thousands among the Americans and English—there is much in his existence which we may well envy, and not a little which, perhaps, we might emulate." In Germany the people generally live happily by cutting down their desires to the level of their means. The educated class lead an existence not undignified, often one of taste and elegance, with the pleasures of calm and contemplative literary habits, and yet their income is of an amount which with us would be considered utterly inadequate to furnish means for a happy or comfortable life, and to be content with which, as they are, would be held to argue deplorable want of energy and enterprise. In France, too, there are classes of men who are contented to enjoy, what similar classes in England and America would be fretfully laboring to acquire.

The difference in character between Americans and Europeans, as we find it in those nations which we have named, may be briefly represented by a supposed case. On the one sfde let there be placed before them possibilities of wealth, chances of distinctinction, of political or commercial success, to be purchased by harrassing and irritating strife, by carking cares, by severe and unremitting toil, and on the other, the charms of a life of unaspiring ease, of quiet nights and unanxious days, and of the free enjoyment of the present hour. Nine Yankees out of ten would choose the former; while nine Frenchmen or Germans out of ten would prefer the latter. Without undertaking to pronounce which is right, it is certainly hard to persuade one's self that *all* the wisdom—*all* the true estimate of the objects and the worth of life—lies with the man who decides for the more thorny and rougher path.

To determine aright which is the wisest choice in life, we must have correct ideas about its true object. For what end was it bestowed? for what end should it be employed? Not certainly altogether for repose or inaction or indolent enjoyment; Activity is better than stagnation; exertion in pursuit for any object is better than an existence with no object at all. All the steps which individuals or nations have taken towards a higher or more desirable condition, have arisen from dissatisfactlon with their former and less advanced state. But, on the other hand, we cannot regard wealth, distinction, political success, as the true object of life, or as even worth the struggles which they usually cost. We cannot allow that "getting on in life" is the only, or indeed a very noble aim. We do not think that the man who lives solely to get on in the world can boast much, if at all, over him who is content to enjoy moderate means. Energies wasted by misdirection, are just as much to be mourned over, as energies suffered to lie dormant and die out. Both fall short of the true object of life, which is the formation of a good and godlike character, or *such a use of all our powers, privileges and opportunities as shall make us worthy of the approbation of God and all the good.* As seon as we make this our prime object, and devote all our energies to this work,—then, and not till then, will other objects fall into their right places. Then shall we know what each is worth, and how far it is to be pursned, whether it be repose, tranquility and enjoyment, or exertion, toil, and advancement. Then, and then only, shall we truly understand the relative importance which business, pleasure, study and our other pursuits ought to assume in the plan of life. Struggling and striving after a *fortune* will appear, then, no wiser or nobler tnan *contentment* with a *competence.*—*Country Gentleman.*

MONTREAL MARKET PRICES.

Rates at which produce is purchased from the Farmers.

MONDAY, *5th Feb.*, 1854.

Hay per 100 bundles, 11 to $12½.
Straw do 6 to $6½.
Fresh Butter, per lb., from 1s 6d to 1s 8d.
Salt Butter, do from 10½d to 1s.
Country Cheese, from 7½d to 9d.
Wheat from 10s 6d to 11s.
Barley, 4s 6d.
Rye, none.
Oats, 2s 9d.
Indian Corn from 5s 9d to 6s.
Buckwheat, 4s 6d.
Peas, from 5s 3d to 5s 6d.
Beef, per 100 lbs, from 4 to $7.
Mess Pork, $16.
Mutton, per carcase, from 2½ to $6.
Lamb, do from 1½ to $2¾.
Veal, 4 to $5.

HIGH FARMING.

A curious correspondence, ending in a rather Irish result, appears in the Agricultural Journal of Ireland, between Mr Caird and Mr C. W. Hamilton, of Lower Dominick street, Dublin. Agricultural readers will remember a sensation made some time ago by a statement of Mr Caird's at the annual entertainment given by Mr. Mechi, relative to the quantity of ryegrass grown per acre at Cunning Park, in Ayrshire. Mr. Telfer, of Cunning Park, was present at the meeting, and from him personally Mr. Caird received the information which he ventured to state aloud to the assembled agriculturists. It was simply to the effect that about 100 tons of green grass was cut at Cunning Park, and might probably be cut elsewhere from a Scotch acre of moderate land. Nothing seems to disturb the agricultural mind so much, however, as the idea that any great or good thing can come out of the soil. Indignant letters were written to the Times, and the Mark Lane Express waxed wroth for many weeks at what was called the monstrous assertion of Mr. Caird. Among other persons unusually excited was Mr. Hamilton, of Lower Dominick street, who set out on a journey to Cunning Park, took notes, and printed them, thumping the whole business by round abuse of Mr Caird. The latter gentlemen wrote to Mr. Hamilton demanding an explanation or rather retractation, but firm and inexorable was the incensed Irishman, He would not retreat a hair's breadth, but rather made matters worse by reaffirming what he had previously said. Mr Caird asked the advice of Mr Napier, M.P., who very wisely recommended that the correspondence be printed, and Mr Hamilton exhibited as therein reflected. This has accordingiy been done ; but it so happens, that in the same number of the Journal in which it appears, Mr Hamilton inserts a letter from Mr Telfer, of Cunning Park, stating that the former gentleman's notes are a series of errors, and that he, the corrector of Mr. Caird's mistakes, had mistaken nearly everything that he had seen or was told at the Aryshire model farm ! The original question of the ryegrass is thus disposed of by Mr. Telfer :—"The result obtained from a portion of the field which I continued manuring were 82 tons 10 ewt. per acre, being the weight of grass taken off that part of the field in five cuts. Several of the weighings were made in presence of agricultural friends, and the grass selected was considered by them a fair average of the crop as it stood."

SUPPLY OF GUANO.—It appears that the government of Mexico have recently granted for ten years to Senor Jose O, Forns and others, representing a body to be called the Mexican Guano Company, an exclusive privilege for the exportation of guano from all the coasts and islands belonging to that country, with the exception of three islands in the Pacific known under the name of the Marias. Circulars have accordingly been issued, notifying the conditions on which it may be obtained, the professed object of the proprietors being to leave the trade as open as possible consistenly with their own claims for remuneration. The quanity of the guano existing on the Atlantic side of the coast has been more thoroughly examined than that on the other, owing to several cargoes having already been taken thence to the United States, as well as a few to Liverpool, and is stated to be entirely distinct from the Peruvian descriptions, its richness consisting in sixty per cent. of phosphate of lime. That which exists on the islands and promontaries of the Pacific coast and in the Gulf of California is described as of a more varied character, some parts which are rainless being expected to supply high qualities, while in others the descriptions are inferior. Thus far, however, there seems to have been no accurate classification of the respective sorts nor any reliable estimates as to the quantities obtainable. The discovery of these deposits as regards the Atlantic portion is only of recent date. The islands containing the principal amount are called the Triangles, near the coast of Yucatan ; and no knowledge of the circumstance seemed to have been possessed by the Mexican Government until very lately, when, after two American vessels had filled there, one of them, with more than 200 tons on board, was stranded in a storm on a neighbouring point, and the matter was brought to light.—*London Times.*

NOTICE.

THE MEGANTIC AGRICULTURAL SOCIETY No. 2, will hold its ANNUAL WINTER SHOW of Grain and Domestic Manufacture, at the HOUSE of THOMAS DEVANY, Esq., on the 14th Day of FEBRUARY, 1855.

Per Order of the President,
PETER CAMPBELL,
Secretary-Treasurer.

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LETTER FROM MR. STEPHENS.

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JOHN AULD.

Montreal, 2nd October, 1854.

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The Farmer's Journal,

And

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

Vol. II, No. 12, Montreal, April, 1855. Postage Free. Price 2s 6d. per annum, in advance.

The Farmer's Journal.

The Farmer's Journal.—With the present number we conclude the second volume. Parties desirous of continuing their subscriptions will please remit the amount to us during the current month. As formerly noticed the price for the ensuing year is 2s 6d per copy. We hope that the Presidents and Secretaries of the different Local Agricultural Societies will exert themselves to obtain a liberal increase to our subscription list.

PROVINCIAL EXHIBITION AT QUEBEC.

At a meeting of the Local Committee, held at the Exhibition Office, on the 23rd February, 1855, pursuant to notice.

Present:

James Gibb, Esq., Chairman.
W. H. Anderson, Esq.
Hon. N. H. Belleau.
Capt. Rhodes, M.P.P.
Joseph Hamel, Esq.
John Musson, Esq.
Isaac R. Eckart, Secretary.

The Secretary reported, that the letter, of which a copy follows, had been transmitted to him by a member of the Local Committee, to be read at this meeting, which being done, it was proposed by Mr. Belleau, seconded by Mr. Anderson, and resolved unanimously,

That the letter just read, addressed to the Board of Agriculture, in answer to the Report of the said Board, as published in the *Farmer's Journal* of February, 1855, relative to the Provincial Exhibition, held at Quebec, in September, 1854—is approved by this Committee—and the President is requested to sign the same for the Committee, and send a copy thereof in the name of the said Committee to the President of the Board of Agriculture, with a request that the same be published in the *Farmer's Journal*.

Copy of a Letter read at the Meeting of the Local Committee (of the Provincial Exhibition, held at Quebec in September, 1854,) on the 23rd Feby., 1855 :

The attention of the Local Committee of the Provincial Exhibition, held at Quebec in 1854—having been called to the proceedings of the Board of Agriculture of the 31st January, 1855, as published in the *Farmer's Journal* of 1st February, 1855—they deem it a duty they owe to the public as well as to themselves, to express their surprise and astonishment at the very unfair manner in which the Board of Agriculture are acting towards them, in circulating a Document whose object is to censure their Committee, more particularly, as no opportunity has been offered to the President or Secretary of the Local Committee to attend the above Meeting of the Board of Agriculture, when explanations could have been asked and given, which would have been alike satisfactory to the Board and to the public, who have been so unnecessarily called in to witness their proceedings.

It has not escaped the observation of the Local Committee, that the language of the published report of the proceedings in question, partakes fully of its intemperate character, and the Local Committee protest against this attempt of bringing private gentlemen by name into disrepute, for acts done by them in the fulfilment of an onerous and patriotic duty, because those acts do not suit the humour of the Board of Agriture, arising from their own defective arrangements, or from a misapprehension of the relations Local Committees bear to the Board. The Local Committee particularly refer to the unusual introduction of the President's and Secretary's surname on all possible and unnecessary occasions through the report, and to the appellation of "Mr. Secretary Eckart" being used when the terms, the President and the Secretary would have sufficed, and would have been considered usual and courteous. The Committee, therefore, regret the Board of Agriculture of Lower Canada should have so far forgot its own dignity, as to descend to such means of shewing its ill humour, especially when referring to a body of gentlemen, at least as respectable as themselves, and whose services in the cause of agriculture have been as arduous and as persevering. The Local Committee, in Quebec, in undertaking the duties (which the Board of Agriculture are now anxious to show would have been so much better performed by themselves) depended in some degree upon the correctness of an estimate furnished to them by the Board of the probable revenue and the probable expenditure. An estimate of such a nature, made in the month of February, of so eventful a year as the past, could not be expected to prove very correct, especially as the Local Committee were not allowed to make any arrangements until the month of May, and then only on their informing the Minister of Agriculture of their intention to resign if they were not allowed to proceed; the cholera, the general elections, and the unusal price of labour and materials were sufficient causes to justify a breakdown, but the Local Committee determined to proceed though they received little or no assistance from the members of the Board of Agriculture, either previous to the show, or in contributions to the show.

The Local Committee however, depended upon such portion of the probable revenue, as alone appeared to be susceptible of certainty, viz. :—

Ten per cent allowed by law from Agricultural Societies	£750	0	0

The remainder of the revenue being uncertain, could not be depended upon, without great care was taken in the local arrangements, viz.:

Quebec County Agricultural Society current year's income.....	250	0	0
Quebec Corporation.....	300	0	0
Collection at the door and sale of tickets, &c., &c..	750	0	0
To be collected at Quebec from different sources...	600	0	0
	£2,650	0	0

of this sum £750 only was to be provided by the Board of Agriculture—the remainder, viz., £1,900—had to be raised by and through the influence of the Local Committee, even the £250, Quebec County Agricultural Society's income would not have been obtained, if some of the members of the Local Committee had not subscribed liberally to its funds. The estimated expenditure was

Prize List and expenses...	£1,500	0	0
Buildings and fences.....	800	0	0
Expenses of Local Committee for contingencies, Secretary, Messenger.....	250	0	0
Refreshments for Judges,&c.	50	0	0
	£2,600	0	0

The amount actually received has been

Quebec Corporation (office and ground for the Exhibition free of charge)...	£300	0	0
Collected at the door for entries, &c., £841, and at Quebec from different sources, £464.....	1,305	0	0
Quebec County Agricultural Society's income.....	325	0	0
	£1,930	0	0
Ten per cent allowed by law from Agricultural Societies.....	750	0	0
	£2,680	0	0
From which deduct probable Revenue as per original estimate.....	2,650	0	0
	£ 30	0	0

Balance in favor of the exertions of the Local Committee in Quebec.

The above calculation shows the injustice of the complaint by the Board of Agriculture that the Local Committee fell short in furnishing the amount which it was required to collect by £218 3 0.

The Local Committee have taken credit for the whole amount of entries, as the Exhibition was not supported by other Districts, in the manner Quebec supported the Exhibition at Montreal in 1853. Members of both Houses of Parliament were admitted free, as well as firemen, and all others in uniform.

The amount actually expended has been for all purposes £2,663, leaving a balance of £17, to be handed over to the Board of Agriculture in favor of total results of the visit to Quebec.

The Board of Agriculture having undertaken to provide towards the revenue.

Ten per cent allowed by law from the Agricultural Societies.....	£750	0	0
And having received from the Quebec County Society £75 in cash and £250 Government grant.....	325	0	0
	£1075	0	0
Have remitted to Quebec only a portion of this sum	722	0	0
	£353	0	0

And it is this balance which is refused to be paid, on the plea of a want of formality in the proceedings of the Local Committee. The Board must remember in a joint action of this kind, whilst the Agricultural Section fell to their lot, the Industrial, Horticultural, Ploughing and general management had to be arranged by the Local Committee, and the contributors of £1,900, could never be expected to submit all their small items of expenditure (except for the purposes of information and advice) to a body who only undertook to find £750, and who put themselves to little trouble or inconvenience about the matter.

The Local Committee of Quebec are quite prepared to have all their accounts audited. they have been so in Quebec and found correct. and they court the fullest inquiry into all their proceedings, and if the Board of Agriculture, or any other party can detect vice or extravagance they are willing to suffer censure, but the Board of Agriculture will gain nothing by assuming a position of superiority, which no body of independent men (holding the purse strings) will submit to, and the interests of agriculture will not be benefitted by captious proceedings or repudiating tendencies on the part of the Board or any other body.

The Local Committee recommend the Board of Agriculture to pay over the balance due the Committee, so that the contractors for the buildings may be finally settled with, they also draw the attention of the Board to the fact, that the management of the Exhibition at Montreal in 1853 has never been made public, though it had all the advantage of the superintendance of the Board and their own Secretary which is unfair to the Exhibition of Quebec, as it is supposed the comparison would be in favour of the good management of the latter place. The attention of the Board is also drawn to the following resolutions passed at the annual meeting of the Quebec County Agricultural Society, held at the City Hall in Quebec, on the 15th day of February, 1855.

Present:

J. W. Duncomb, Pt.	Capt. Rhodes.
James Dinning.	J. R. Eckart.
Math. Davidson.	Rev. Mr. Horan.
W. H. Anderson.	John Lane.
Dan. McCallum.	M. Scullion.
Thomas Hamel.	Leon Belleau.
Capt. Serecold:	H. S. Anderson.
M. Hopper.	

Resolved,—That the thanks of the Quebec County Agricultural Society, be given to the Local Committee, for the able and successful manner, in which they carried out the Lower Canada Provincial, Agricultural, and Industrial Exhibition of 1854.

Resolved also,—That the Board of Agriculture be requested to pay over the income of the Quebec County Agricultural Society, for 1854, to the Local Committee of the Provincial Exhibition, held at Quebec in 1854, so that the claims against the said Exhibition may be finally settled.

By order of the Local Committee.

JAS. GIBB, Chairman,
Local Committee.

Quebec, 14th March, 1855.

INDUSTRIAL EXHIBITION.

The Annual Shows of the Agricultural Societies of England, have unquestionably done more during the last ten years for the advancement of Agricultural interests in that country, than anything attempted in all former time. the object of every experiment is, to do with more certainty and cheapness that which had hitherto been done with difficulty by the ruder implements of former ages. In manufactures, it is the superiority of the spinning jenny over the distaff in the economy of time and expense which constitutes its value, and hence the great importance of the Industrial Exhibition in giving to the world, whatever has been discovered as valuable in art, in science, or in nature.

We stated in our last monthly issue, the means which had been adopted by the Committees of the Industrial Exhibition to procure a fitting representation of the Industry and Products of Canada for the World's Fair at Paris. The attendance of His Excellency the Governor General at the inaugeration, and the enthusiasm excited among all classes of the population, to impart a national character to this great Exhibition of the industrial resources of the country,

have been crowned with complete success, and Lower Canada has acquitted her-elf nobly of the important duty of showing France and Europe how great are her resources, and how fast she is advancing in the path of prosperity and future greatness.

The practise of husbandry besides being the most ancient, is unquestionably the most important of all occupations, especially to the inhabitants of comparatively new countries. If the owner of a farm in the preparation of his land is enabled, by improved implements, to accomplish its cultivation with a less expenditure of labor, and can by better methods of treating the soil, obtain, without exhausting it, larger quantities of produce, if during harvest he can replace the labor of many men by a mechanical reaping machine, if in preparing corn for human food, the steam thrashing machine, will save two thirds of the former expence, if in preparing food for stock the turnip cutter adds in one season materially to the value of a sheep, it is clear that in all these efforts, agricultural machinists have been so far successful as to effect a saving on out-goings, or an increase of in-comings of a very important character.

If the saving of expense by the use of improved agricultural machines and implements is less than that effected in the weaving of calico or cloth, it should still be borne in mind, that the cost of that which produces the saving is comparatively small. When the distaff and hand loom were changed for the power loom and spinning jenny, the intricate machinery required large factories for its employment, and cost thousands of pounds. In agriculture a few portable implements and machines suffice, and thus the introduction of new agricultural machines, with reference to the amount of saving produced, possesses the merit of great cheapness.

There is another advantage of machinery in agriculture which is apt to be overlooked, it imparts more certainty to the operations upon any land which may suffer during an unusually wet season, but if in sowing wheat the presser is used, it settles it in its bed, and the manure distributer with a cheap sprinkling brings it out at the right time in a vigorous growth. In sowing barley earliness may save the crop, and the improved cultivator will do the work of the old fashioned plough in a fourth of the time, and enable the farmer to profit by a short but auspicious season. With the turnip the dry drill supplying it with superphosphate saves it in a great measure from the fly. Or the water drill, anticipating the rain, makes its seed time to some extent independant of the weather. Machinery will also guard against the inconvenient arrival of rain, by making hay and reaping corn rapidly, and while the sun shines, thus giving to farming what it most wanted, not of course absolute, but, at least, comparative certainty in its operation.

We have dwelt upon these subjects in connexion with the recent Industrial Exhibition, because we find that the use of machinery in this country has by no means advanced as rapidly as it has done in other lands, or as its improvement merits. Many of the best and most approved machines have not been adopted in general use, and this fact may be readily accounted for. The farmer, whose life is secluded has little opportunity of seeing them, and of becoming acquainted with their labor saving qualities. The farmer who thrashes 13 quarters a day, does not know that in other countries there are machines with which 40 quarters is the proper work of a day, and this, if he is of an observant and enquiring mind, is precisely the knowledge which the Industrial Exhibition will bring him.

We give below the list of the articles selected at the Lower Canada Exhibition, and which have been sent to Paris. Upper Canada has also forwarded her contributions, and no doubt the entire civilized world will be represented, and will in turn profit by the inventions and the experience there made public.

LIST OF ARTICLES SELECTED FROM THE LOCAL EXHIBITION IN MONTREAL, TO BE SENT TO PARIS.

A large collection of medicinal plants in crude and pulverized state; also dye woods in powder, samples of linseed oil, meal and cake, illustrative of their manufacture by improved steam process; also bees-wax, potash, pearlash, aerated salt and castorium—W. Lyman & Co., Montreal.
Samples of cameline oil and neats foot oil—J. Fisher, Riviere des Prairies.
Drugs and Dyes—W. E. Bowman, Montreal.
Yellow Wax and Canadian Isinglass—S. J. Lyman & Co., Montreal.
Superior Glue from common starch—A. McFarlane, Montreal.
Sample of Spring Wheat—John Cowan, Lachute.
Do do Rev. Mr. Villeneuve, Montreal.
Do do R. Kimpton, St. Therese.
Do do A. Coffin, Gaspe Bay.
3 Do do Agricultural Society, Saguenay.
Do do F. Peltier, Isle Jesus.
Do flint Rev. Mr. Villeneuve, Montreal.
Samples of Barley—J. Fisher, Riviere des Prairies.
Do do Mr. Graham, Chateauguay.
Do do John Oswald, St. Therese.
Do do James Logan, Montreal.
Do Oats David Laurent, Varennes.
Do do Mr. Budham, Drummondville
Do Peas Mr. Robertson, Longue Pointe.
Do do Rev. Mr. Villeneuve, Montreal.
7 Do Garden Peas—G. Shepherd, do
Do do John Dillon, Longue Pointe.
Do do Walter Millar, St. Rose.
Do do H. Derrick, Lacolle.
Do Brown Beans—G. Shepherd, Montreal.
Do White do A. Kimpton, St. Therese.
Do Mottled do G. Shepherd, Montreal
Do Timothy Seed—S. Stephens, St. Martins.
Do do William Evans, Montreal.
Do Red Clover Seed—W. Lyman & Co., Montreal.
Do Superfine Flour (canal mills) Mr. McDougal, Montreal.
Do Buckwheat Flour—Richard Thomas, Montreal.
Do Oatmeal—James Dagg, Montreal.
62 lbs Hops—Thos Dawes & Sons, Lachine
Samples Maple Sugar—Mr. Taylor, Hatley.
Do do W. Parker, Hatley.
Do do N. Valois, Montreal.
Do Maple Syrup—N. Valois, Montreal.
Do Oil Cake—Corse & May, do
Do do W. Lyman & Co., do
Samples Mixed Pickles—J. Ashton, St. Laurent.
Do Ground Oil Cake—W. Lyman & Co., Montreal.
Do Lentels—W. Lyman & Co., Montreal.
Do Preserved Potatoes—W. B. Southwick, St. Hilaire.
Do do Beef W. B. Southwick, St. Hilaire.
Do do Meat Biscuit, do do
Do do Apples, do do
Do do Meat and Flour Biscuit—G. Mochrie, Montreal.
2 Do do Biscuits—John Robb, Montreal.
6 Do do do Clark Fitts, do
1 Cheese—G. Cross, Chateauguay.
Sample of Cameline Seed—J. Fisher, Riviere des Prairies.
Do Indian Corn—G. Sheppard, Montreal
Do Potatoe Flour—Madame Lacombe, Quebec.

Do Corn Starch—J. Hutchinson, Montreal.
Do Flax Seed—W. Lyman & Co., do
Do Ground do do do
Do Maple Sugar (brown)—J. Redpath & Co., Montreal.
Do do (white) do do
Do do refined do do do
Do do do do do do
Do do Manilla do do do
Do Sugar made from Molasses do do
Do Crushed X Sugar, do do
Do do A do do do
Do Hams, Sausages, &c.—E. Idler, do
Samples of Horse, Cow, and Curled Hair, and Canada Bristles—Thomas Jenking, Montreal.
Do do Feathers and Down—J & W Hilton, Montreal.
Do Fancy Soaps, Candles, Oils, Lard, &c.—J. Mathewson & Son, Montreal.
Do Fancy and scented Soaps—J. G. Hearle, Osnabruck.
Planing and Thicknessing Machine—W. Rodden, Montreal.
Ship Carpenter's Trunnel Machine do do
Chair and Broom Makers' Turning Machine, do do
Moulding Machine, Circular Saw, Tenanting Machine, Cabinet Makers' Portable Sawing Machine, and Borers, with Circular and Vertical Saws, Bits, Stocks, &c., all on one table—W. Rodden, Montreal.
Nail Machine—Mr. Dunn, Montreal.
Morticing Machine—McLennan & Co., do
Screw Cutting Lathe—C. P. Ladd, do
One Plaining Machine—D. Munro, do
Sewing Machine—Taylor & Dockrill, do
Fire Engine—G. Perry.
Large Platform Scale—C. P. Ladd, do
Small do do W. Rodden, do
Counter Scales, do do
Steam Plough—R. Romaine, do
1 Plough—James Paterson, do
1 Do James Jeffries, do
Improved Harrow, do do
Common do do do
Improved Grubber—J. Jeffries, Montreal.
Common do do do
Root Slicer, do do
Fanning Machine—Mr. Rice, do
Samples of Shovels—W. Parkyn. do
Reaping Machine—Matthew Moody, Terrebonne.
Clover Separating Machine, do do
Crud Crusher for Making Cheese, do do
Horse Rake, do do
Thrashing Machine—B. P. Paige, Montreal.
Seed Sowing Machine—Mr. Robertson, Longue Pointe.
1 Pair Blankets—Simon Bean, Hatley.
6 dozen Knitted Hose, do do
1 Piece Flannel, do do
1 Shawl—Mrs. Laura Colby, do
1 Piece Worsted Plaid, do do
1 Do Flannel, do do
1 Do Etoffe du Pays—N. Valois, Montreal.
1 Do Table Cover—Madam Langevin, Montreal.
1 Do do Mrs. Vanelow, do
Sample Spun Thread—Grey Nuns, do
Do Flax and Flax Straw—W. Knox, Lachine.
Do Wood—John Robinson, Lacolle.
Sett of Double Harness—Mr. Courvette, Montreal.
Sett of Single do Mr. Morris, do
Sett of do light do Mr. Barrington, do
Sett of Common Canadian Harness—N. Valois, do.
Samples of different Leathers, do
Do of Dressed Skins, do
2 Bottles Harness Varnish—C. Lafreniere, Montreal.
1 Trunk—W. Morris, Montreal.
1 Do R. Dean, do
1 Valise, do do
1 Portable Forge and Bellows—R. Dean, Montreal.
1 Do do C. Linley, do
Branch Pipe Shore—W. Ferguson, do
Light Carriage—C. Leduc, do
Samples of Book-Binding—R. & A. Miller, Montreal.
Do do W. Young, Montreal.
Canada Directory—Mrs. Mackay, do
Ornamental Printing—Starke & Co., do
Do do J. & M. Rose, do
Do do Salter & Ross, do
St. John's News on Satin—W. W. Smith, St. John's.
Samples of Everlasting Paper—Mr. Andres, Chambly.
Specimen Book of Printing Types—C. T. Palsgrave, Montreal.
Samples Oil Cloth—Mr. Laflamme, do
Straw Hats and Bonnets—Madame Ranger, L'Acadie.
Specimen of Needle Work—Dem Eleniore l'arthnais, L'Industrie.
Do do Mrs. Walton, Montreal.
Do do Mrs. Coroner Jones, do
Lint of Etoffe du Pays — Gauthier, do
Samples of 50 varieties of Boots and Shoes —W. Symthe & Co., Montreal.
Sett of Planes—Dawson, Montreal.
Do do Wallace, do
One Patent Smooting-iron.—W. Rodden, Montreal.
Samples of Edge Tools—R. Scott, do
Do of Axes—J. J. Higgins & Co., do
Metallic Air-Tight Coffin—C. P. Ladd, do
Sample of Electro-Plated Ware—Boble & Hendry, Montreal.
Do of Nails and Railroad Spike—T. Peck, do
Do Fancy Castings—W. Rodden, do
Cooking Stove— do do
Parlor Stove— do do
Refrigerator—G. F. Prowse, do
Samples of Wire cloth and Sieves.—Rice, Montreal.
Do Ship Blocks—Mr. Clarke, do
Drawing-Room Furniture—J. & W. Hilton, do
Grand Square Piano-forte, T. D. Hood, do
Two Mosaic Work Boxes—Mr. Duclos, do
Samples Wooden Chairs—O. McGarvey, do
Do Doors & Windows—J. Ostell, do
Two packages Sugar Boxes do do
One nest Packing Cases— do do
1 Bonnet Box do do
Model of Court House, Montreal, do do
Samples of Grain Shovels—M. Lamouche, do
Do Axe, Pick and Hammer Handles —J. & D. Smith, Montreal.
Do Wheel Spokes—J. & D. Smith, do
Do Staves—W. Manning, do
Do Flour Barsels do do
Do of Hoops—W. McGibbon, do
Do Staves and Kegs—W. McGibb, do
Do Ash Oars and Hickory Handspikes —A. Cantin, Montreal.
Samples of Brooms—Nelson & Butters, do
Staves and Nail kegs—Grant, Hall & Co., Montreal.
One Black Walnut Board—W. Kennedy, do
One Sounding Board—T. D. Hood, do
Two Pine Planks—J. H. Dorwin, Rawdon.
Collection of sixty-four varieties of Woods M. Dickson, Kingston.
Do of thirty-six do of do—J. H. Sharples, Quebec.
Collection of thirty-five do of do—Mr. Farmer, Woodstock.
Collection of Fish-Hooks and Flies—J. Peacock, Montreal.
Do Fishing-Line—M. Moody, do
Do of Wax-Work—Sisters of La Providence, Montreal.
Complete Collection of Drawings of the Fruits and Vegetables of the Country —Miss Sheppard, Montreal.
Plan of a Farm in the Seigniories, L. C.—W. Evans, Montreal.
Large Map of the Canadas and Western States—T. C. Keefer, Montreal.
Stained Glass Window—J. C. Spence, Montreal.
Enamelled Plate-Glass Drawing-Room Table—J. C. Spence, Montreal.
A Large Veluable Collection of Stuffed Birds and Animals of the Country—Mrs. McCulloch, Montreal.

This is independant of the articles to be sent from Toronto and Quebec; some of the articles from the latter city were exhibited here, and we shall endeavour to give a complete list of the contributions from thence in a future number, as also a list of the articles sent from Brockville, which have unfortunately been delayed on the way, and have not yet arrived.

Mr. Logan's list of mineral productions has already been published.

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We give below the reports of the Judges appointed to decide upon the merits of the various articles exhibited in the Bonsecours Hall last week.

REPORT OF THE JURORS UPON CLASSES. 1 AND 2.

The Jurors beg to report in the first place

upon the collection of the economic minerals of the Province, contributed by Mr. Logan, the Director of the Geological Survey, as being the most extensive, complete and valuable contribution in the whole exhibition. The principal independant contributors to this collection are Dr. Wilson of Perth, Mr.A. Dickson of Kingston, John Porter & Co. of St. Maurice, Larne & Co. of the Radnor Forges, Mr. Sleeper of Quebec, and Mr. James Logan of Montreal. Apart from the specimens sent by these gentlemen, by far the greater portion of the collection was made at the localities by the officers of the Geological Survey, In preparing the marbles for exhibition, Mr. Logan engaged the services of Mr. Hammond, by whom the greater part of the specimens were polished.

The Jurors would unhesitatingly recommend that the whole of the collection, or such parts of it as Mr. Logan deems proper, be sent to the Exhibition at Paris.

In the Second Class, they would mention a large collection of medicinal plants, both native and imported, exhibited by Messrs. Lyman & Co., and a collection of pulverized drugs and dye woods, from their mills, which appear to have been propared with great care and neatness.—Messrs. L & Co. also send specimens of raw and boiled linseed oil, with oil-cake, from the manufactory, as well as neats-feet and cod-liver oil, which the Jurors conceive to be of superior quality. Specimens of dyer's saffron (*Carthamus tinctoria*), which is cultivated to a considerable extent in Canada, and of the rare and costly during *Castoreum*, are also among their contributions. They have besides a fine specimen of yellow wax, which is becoming an important article of export from Canada, and specimens of potash, pearlash, and saleratus. The jurors cannot but express their surprise that no other specimens of these great staple productions were to be found in the exhibition.

Mr. J. Giroux, of Quebec, sends some fine specimens of Canada balsam, oil of white spruce, and cod-liver oil, besides vegetable extracts and some native drugs. While Mr. T. C. Keefer contributes small specimens of the white porpoise (or Bleuga) and the black porpoise of the Gulf, it is to be regretted that no large specimens of these excellent fat oils, whose extraction constitutes such an important branch of industry in the District of Quebec, should be found in the Exhibition.

Mr G. Fisher sends a bottle, named "Cameline Oil," said to be extracted from seeds which appear to belong to a plant of the mustard family; and Mr. Fox a small bottle of a beatifully refined neats-foot oil.

Mr. W. Bowman, of McGill Street, sends some drugs, among which is a specimen of of dyer's saffron, and another of castorium; while S. J. Lyman contributes yellow wax, and a beautiful sample of Canadian isinglass; the air-bladder of the Sturgeon of our waters. The world has hitherto been almost entirely dependent upon Russia for this valuable material, but Canadian fisheries might furnish a large supply. Mr. Arch Macfarlane, of Montreal, also sends a box of glue, of an excellent quality. Mr. Earle, of Osnaburgh sends a large case containing a great variety of fancy soaps, prepared with a great deal of skill and taste; and J. Mathewson & Son, of Montreal, sends common soaps, refined oils of different kinds, and specimens of their excellent Belmont sperm, patent wax, and tallow candles.

The sugars sent by Mr. Redpath deserve the highest praise, and show that he has already carried the process of sugar-refining to a high degree of excellence. Besides the beautiful white sugars obtained from molasses, and from coarse Manilla sugar, there were various specimens of refined maple sugar, which possess particular interest, as being among our native productions. J. Quebec also contributed a large loaf of common maple sugar, and a box of the same refined and beautifully white.

The jurors would recommend that boxes, or small casks of about fifty-six pounds each, of Mr. Lyman's potash, pearl ash, and saleratus be obtained for the Paris Exhibition, to be accompanied by smaller specimens in strong, well closed white glass jars. They would also recommend from fifteen to twenty pounds of the best yellow wax, from W. Lyman & Co., and the same amount from S. J. Lyman, from whom two pounds of his isinglass should be procured. Specimens of W. Lyman & Co.'s, cod liver, neats-foot, and raw and boiled linseed oils, should also be procured in white glass jars of about half a gallon and of the last two, 5 or 6 gallons each, additional in tin cans or small cask. From Mr. Lyman also should be obtained a bale of 6 or 8 lb of Dyer's saffron, and ¼ lb. of castoreum, from Mr. Bowman.

They would recommend also Mr. Giroux's specimens of Canada balsam, oil of spruce and cod liver oil to be sent, and suggest the propriety of obtaining large specimens of the Porpoise oils if Quebec has not already furnished them. A gallon of the refined neatsfoot oil from Mr. Fox, should also be procured in a suitable glass jar, and the oils and candles as sent by Mr. Mathewson, should be selected, as well as the case of soaps from Mr. Hearle, as objects worthy to be sent to Paris, together with a box of grain from Mr. A. McFarlane.

They would besides recommend the case of specimens of Maple Sugar, and the two casks of the same refined sugar, from Mr. Redpath, as well the two specimens from Quebec, as articles to be purchased for the same end.

WM. SUTHERLAND.
Chairman of the Committee.
R. TRUDEAU,
T. STERRY HUNT.
J. P. LITCHFIELD M. D.

THE JUDGES ON CLASS 5 HAVE THE HONOR TO REPORT.

They have examined the Sewing Machine belonging to Taylor and Docrill and they approve of it being the best of the two in workmanship, and pattern.

They have examined the Bench and Moulding Planes belonging to Joseph Dawson, and they approve of them, as being much superior in workmanship, with better material than the others.

They have examined the case of Edge Tools belonging to Robert Scott, and found them well worthy of notice, considering the price of them very moderate.

They have examined a Vice belonging to J. Johnston, and found it improved in its principles, and considered it a very good artiele.

They have examined a Portable Forge, belonging, to Robert Dean, and found it on a good principle.

They have examined a Smiths Bellows, belonging to Charles Linley, and found it well got up, and highly recommend it.

They have examined a Round Action Bellows, belonging to Charles Lindley, and found it a good article.

They have examinedha Cooking Stove with Copper vessels, belonging to Mr. Wm. Rodden, and approve of it, and recommend it as being on a good principle.

WILLIAM PARKIN,
A. CANTIN.
P. LEBLANC,
OLIVIER FRANCHER.

Montreal, 10th March, 1855.

P. S.—They have examined a case of Augers and Bitts, belonging to Robert Scott, and found them recommendable tools.

W. P.
A. C.
P. L.
O. F.

REPORT OF THE JURORS ON AGRICULTURAL IMPLEMENTS.

CLASS IX.—*Agricultural Implements.*

JURY—Jas. Somerville, Esq., Lachine, Chairman; John Drummond, Esq., Petite Cote; Jos. Lanouette Esq, River St. Pierre; Jas. Allen, Esq., Longue Pointe; John Penner, Esq., Montreal, Reporter.

The Jury find it utterly impossible to arrive at any satisfactory conclusion on the merits of the various implements before them, from not having seen them in operation. At the same time, they have much pleasure in stating that the ingenuity and beauty of finish displayed is highly creditable.

ROMAINE'S STEAM FARMER.—The most prominent feature in this department, and indeed in the Exhibition, is Romaine's Steam Farmer. It is generally known that an Implement of this description, by the same inventor, was exhibited last year at the annual meeting at Tiptree Farm, and Mr. Mechi then expressed great confidence

in the ultimate success of an implement.—The chief difficulty was in maintaining sufficient steam power, as the oscillation caused the water to prime. This seems obviated in the present machine, which is entirely novel. We cannot, however, enter into a detailed description of it, nor are we able to express any opinion how it will work. Without doubt, however, it can only be available in land free of stones and inequalities. There are minor objections we could point out, but if the *principle* is established, they will easily be remedied. The engine would be available for many purposes on a farm, such as driving thrashing mill, grist mill, saw mill, &c. A seed drill is attached, whereby the seed may be dropped during the operation of ploughing, or we should say *pulverizing*, as this is the effect produced by the machine. It was manufactured by Messrs. Kimmond Bros., of Montreal, and reflects great credit on their establishment.

Mr. Matthew Moody, of Terrebonne, exhibits:

1. A Reaping Machine,
2. A Revolving Horse Rake,
3. A Clover Thrasher.

The Reaping Machine is propelled by two horses, and the grain when cut is carried and dropped, ready for binding, on one side of the machine, by a revolving sheet. Without seeing it in operation it is impossible to decide how it will act, it looks equal to its work, and is remarkably well constructed and highly finished. It is much lighter than we have seen, and we have much confidence and pleasure in recommending it.

The Rake is not novel, but is very well made and finished.

The Clover Mill is simple and appears very efficient.

Mr. Jas. Patterson, of Montreal, exhibits a Swing Plough, which for beauty of design, excellent construction, and superb finish, defies competition, and we have the greatest pleasure in highly commending it as a first-rate implement.

Mr. Jas. Jeffrey, of Petite Cote, exhibits:

1. A Swing Plough, apparently well adapted for making good work.
2. A Drill Cultivator, well modelled and finished.
3. A Cultivator for subsoil or general use, well made and combining all the late improvements.
4. Double and Single Harrows, remarkably well constructed.
5. Double and treble whipple trees, of good workmanship.
6. Root Cutter, not novel, but very well made.

Mr. John Robertson, of Longue Point, exhibits a Seed Drill and a Mowing Machine. The Drill is of an exceedingly simple, cheap and efficient make. It is of novel construction and accomodates itself to any surface, and will sow any kind of seed in either ridge or drill. We are unable to express any opinion on the Mowing Machine; it however costs but a trifle and can be attached to any ordinary cart.

These implements are invented and manufactured by a farmer without the aid of a mechanic—and apart from their utility are exceedingly well constructed and finished.

Mr. Rice, of Montreal, exhibits a great variety of wire cloth, riddles, sieves, fanners, &c., which we have the greatest pleasure and confidence in very highly commending as superior to anything of the kind imported, and which, we believe, will bear competition with the world.—We have wire cloth for sieves and riddles, for dressing flour, 120 meshes to the inch; for flax seed; for removing chess; for timothy & clover; for smut; for thrashing mills; for locomotives; for fire-proof cielings, &c. Fanners, combining powerful separating qualities with great expedition. Sieves and Riddles in every variety and of unexceptionable make. Excellent Surveyor's Chain. Drum Sieves.

We blieve Mr. Rice is the only manufacturer of these articles in the Province, and from their general utility and excellent make, we trust the Committee may extend some special encouragement to him.

Messrs. B. P. Paige & Co., exhibit a two horsepower threshing machine of great strength and beauty. The frame is of white oak, casing black walnut, the pulleys mahogany, the whole being highly varnished; the cylinder is turned and the weels, gudgeons, &c., polished. It is a very beautiful implement, and we have no doubt would do its work most efficiently.

Messrs. J. & D. Smith also exhibit a threshing machine with wood sawyer attached. It is not so highly finished as Paige's, but it is remarkably well built and combines all the improvements, and is cheap, being only £55. We much regret not being able to see the respective merits of these two mills tasted by actual experiment.

Mr. William Parkyn has a collection of very beautiful cast steel shovels for Railway and farming purposes, two black and three bright. For strength, excellence of design, and beauty of finish, it would be impossible to excel them. We need no longer go from home for such tools.

Mr. J. W. McLennan exhibits a corn crusher, which is remarkably well made, being entirely of cast metal. It can be driven by a horse-power.

Mr. C. P. Ladd exhibits a portable grist mill, which will prove a most desirable implement to a farmer with horse-power. The frame is iron, and the stones the best French burr. It will grind all kinds of grain, and is a very compact beautiful and highly finished implement.

JAMES SOMMERVILE,
JOHN DRUMOND,
JOSEPH LANOUETTE,
JAMES ALLEN,
JOHN PENNER, Reporter.

The Jurors appointed to examine articles exhibited in classes 11, 12, 13 14, 15, 28 and 29, beg to report as under—*only those articles deemed worthy are named*:—

Madame Bouchand of St. Valliere, Quebec, exhibited samples of dressed flax, both bleached and unbleached, and specimens made from the same; also a bundle of fine Woollen Yarn for Hosiery—both wool and spinning very creditable.

Madame Lacomb, St. Michel, Quebec, exhibited a bundle of *Single* Woollen Yarn—the wool not fine but the spinning very superior.

Henderson & Co., of Quebec, exhibited a very fine Beaver Skin Overcoat, the fur of which was very beautiful indeed.

Specimens of knitted Woollen Hosiery from Simon Bean and Laurence Colby, both of Hatley, Canada East. The *fashioning* appeared imperfect but the spinning and knitting worthy of commendation.

The variety of Fancy and Wool Embroidery exhibited was very extensive, and the Jurors found it difficult to make distinctions. They cannot but mention, however, two framed pieces exhibited by Mrs. Digby Campbell, and a Bird of Paradise by Miss Elenore Partenais, of Industry, C. E., as specially worthy of notice.

The Jurors notice with satisfaction a complete Suit of Winter Clothing for a Peasant, conveying as it does a correct idea of the *habitans* of Lower Canada.

The Jurors also notice a case of Artificial Flies and Fishing Tackle, superior finish, exhibited by John Peacock, Montreal.

Under Class 14 was a sample of dressed Hemp, exhibited by Mr. Fell Ossaye; also a specimen of the same hemp in the stalk,—both very fine and worthy of notice as shewing what might be one of the most important productions of the Province.

The same observations will apply to a very fine sample of dressed, and also some in the stalk, raised from Russian seed, and exhibited by Mr. William Knox.

There was also a sample of Wool, fine quality, sent by Simon Bean of Hatley C. E.

Under Class 28, the Jurors noticed, with much pleasure, specimens of Doors and Windowblinds, exhibited by John Ostell, remarkable alike for their superior appearance and the cheapness at which they can be furnished—the work being done by machinery. Also, by the same exhibitor, samples of Packing Cases, put up in sets or nests, so as to be fit for exportation. These from their superior finish and cheapness, the Jurors consider specially worthy of no ice, as shewing what can be done with our cheap timber and improved machinery.

Under Class 29, the Jurors notice as worthy of special commendation, a case of Fancy Soaps, in great variety, exhibited by J. G. Hearle, of Osnabruck, C. W.

They also notice under the same class, specimens of Plain Soap, Oils of various qualities, Wax, Sperm, and Tallow Candles,

all of very superior appearance, from the manufactory of John Mathewson & Son, whose enterprise and success in these several branches are already so well known in the Province.

The whole respectfully submitted by

THOS. W. THOMSON.
SAMUEL BENJAMIN.
D. H. GALARNEAU.

MONTREAL, 9th March, 1855.

To the Executive Committee of the Paris Exhibition, Montreal :

WE, Leonard Eglauch, George D. Ferrier, and Theod. Doucet, the Committee appointed to value the Musical Instruments (Class 10) intended for the Paris Exhibition, beg leave to Report:—

That, after having minutely examined the Piano-Forte made by Mr. T. D. Hood, they pronounce this Instrument, as to power, action, quality and brilliancy of tone and beauty of finish, a very superior instrument.

As an article of Furniture, it would be highly ornamental to any Drawing-Room.

The intrinsic value of the Instrument, the Sub-Committee conceive cannot be less than one hundred and twenty-five pounds.

The Committee would, therefore, certainly recommend the Instrument to be sent to Paris.

The Sub-Committee have also examined carefully the Harmonium and Melodeon exhibited by Mr. S. R. Warren.

They are both excellent Instruments of their kind, and both most creditable to the maker ; but bearing in mind that the Harmonium is a French instrument in its origin, and that it has been there carried to nearly a point of perfection, they would only recommend the Melodeon, (which is the largest instrument of the two) to be forwarded to Paris.

The value of this Instrument, the Sub-Committee consider to be about seventy-five pounds.

With regard to the Organ, also exhibited by Mr. Warren, the Sub-Committee have most minutely examined the Instrument, and tried all the stops, both separately and in different ways combined together.

They find this Organ a most excellent Instrument with regard to its size and compass, power, quality and variety of tone ; and taking into consideration the much larger Organs built by Mr. Warren, and especially the Organ now in St James' Church, Toronto, (which Organ the Members of the Sub-Committee had the pleasure of examining and hearing at the time of its being tried,) have no hesitation in pronouncing Mr. Warren, a First-Class Organ Builder.

G. D. FERRIER,
THEODORE DOUCET,
LEONARD EGLAUCH.

FINE ARTS—(*Also Class* 17.)

A considerable number of the pictures exhibited have been sent by parties resident in Montreal, for the purpose of improving the appearance of the room. Many of these are of great beauty, and attracted much attention from visitors. The owners are justly entitled to the thanks of the community for their liberality in allowing the public so favourable an opportunity for studying them. The pictures by native artists are not so numerous as the Jurors expected to find, nor is their any great variety presented for selection, from subjects illustrative of the scenery and history of the province and the manners and customs of the people. The Jurors were, however, much pleased with two scenes in crayons by Mr. Lock—one a view on the St. Lawrence near Brockville, the other a spirited sketch of Niagara from the Canadian side. The same artist exhibits another view of Brockville in coloured crayons, and a "Studio" in the same style—the latter a remarkably skilful and finely executed composition. Mr. A. Morris has several pictures of different degrees of merit—the Chaudiere Falls is the principal, and gives an excellent impression of that magnificent *chute*, seen under the influence of moon-light. Mr. Kriekhoff's "Scene in the Backwoods," "Thousand Isles," and a "Winter Piece," are good specimens of that artist's happy style of handling his favourite subject—Canadian Scenery. He also shows a highly finished and excellent picture, "The Alchemist." The view of Quebec by Mr. Duncan affords a good specimen of his powers, and being taken from a point that we do not remember to have seen adopted before by any other artist, he is enabled to present the noble and richly diversified landscape in a new and attractive light. The Market Scene [Montreal], and a sketch of a Canadian Cottage, also by Mr. Duncan are deserving of special notice. Miss Shepherd's Fruit and Vegetables, in water colors are beautifully executed,—and so natural they might be sent to Paris instead of the articles themselves—Mr. Somerville's "Forest Scene" is entitled to some commendation, as are Mr. Sharpnell's Groups of Birds, [they are full size ;] and also "Fish," by an amateur. The jurors were much pleased with the drawing of the Tubular Bridge, which is shortly destined to span the St. Lawrence ; and Mr. Lawford, architect, shows some very superior plans for colleges, churches, &c. Messers. Hopkins and Nelson, architects likewise exhibit a variety of plans of considerable merit. Mr. Keefer's large Map of the Province is one of the most interesting and instructive features in the exhibition. The jurors would recommend that when sent to Paris it should be accompanied by a sketch, in French and English, of the topography, population, revenue, &c., of Canada. The Agricultural plans, prepared under Mr Evans's superintendence, engaged a good deal of the attention of the jurors. They are full of interest here, and cannot fail to prove even more so at a distance. They should be followed by an abridgement of the description already in print, in the two languages. Mr. McArthur exhibits an excellent painting, after Boddington—A Rainy Day on the Thames—but little inferior to the orignal, which is also in the room.

Mr. J. C. Spence exhibits several very creditable specimens of stained glass. One of these in particular (a window) is most elaborately ornamented. A design, by the same artist, for the large window over the Altar in the French Parish Church is possessed of much merit, as is a piece of fine tracery.

Mr. Doane's Photographs afford ample evidence of the high state to which he has brought that art. His specimens may fairly be placed alongside of those of any other artist in the same walk.

The attention of the jurors was called to a remarkably fine collection of Artificial Flowers, Fruit, &c.; the largest portion was contributed by the Ladies of the "L'Asile de la Providence," and reflects much credit on the taste and skill in which they have represented some of the fairest of Nature's productions. Mrs. Scott also exhibits some Flowers, executed in the same agreeable and faithful style. Miss Shepherd contributes a handsome Vase, filled with an artificial bouquet, most artistically executed. In this connection the jurors refer with pleasure to a somewhat novel piece which is exhibited. It consists of a collection of Autumnal Leaves of Canadian Trees, tastefully arranged and set in a frame ; the frame itself is composed of acorns, and the seed vessel of various plants. It is the work of Mrs. Cushing.

Two figure heads intended for ships, the workmanship of Mr. Tohier, of Montreal, are creditable specimens of workmanship.

CLASS 17.

The same Jurors examined the few articles exhibited under this head. The book-binding of Messrs. R. & A. Miller is of superior quality ; the same remark applies to the volumes exhibited by Mr. A. Young. In justice to the latter, it ought to be stated that he represents that part of the books shewn by Messrs. Miller, were bound by himself when in their employment, previously to his commencing on his own account. The Jurors, however, feel that they have no right to reject the volumes so bound from Messrs. Miller's list ; as they are entitled, according to the usual custom, to all the credit resulting from labours of those in their service.—Their collection is the larger of the two shown, and one or two of the volumes, the Jurors think, excel any in that of Mr. Young's. The books selected for binding are not the most appropriate for the purpose, and the Jurors recommend, if there be yet

time, that the Central Committee should employ Messrs. Miller and Mr. Young in binding in their best style, a collection of books of Canadian origin, respecting the history, topography, literature &c., of the Province. By this means, not only will additional interest be excited in our section of the Paris Exhibition, but an opportunity afforded to the competing binders to show their skill. Mrs. R. W. S. Mackay's excellent and well bound Canadian guide books, directories, &c., ought to form part of this collection. Messrs Beauchemaine & Payette exhibited an ingenious machine for cutting with rapidity the edges of books. It works with apparent ease, and must save a good deal of labour.

Messrs. Starke & Co's. specimens of printing are characterized by the taste and neatness for which that firm has been long distinguished. Messrs. G. & M. Rose show also a variety of coloured, bronzed and other fancy printing, which does them much credit. Messrs Salter & Ross show two specimens which are so good that the Jurors regret no more were exhibited.

In paper there is no no competition—Mr. S. R. Andres alone exhibiting some sheets manufactured from the "everlasting" plant. The specimens shewn by him evince a progressive improvement of a marked character. Much yet, however, remains to be done in bleaching the fabric to a whiter colour. This paper cannot fail to be very interesting in France, where, as in England, owing to the scarcity of rags, many experiments have lately been made with other materials (wood among others) for the manufacture of this important article. If Mr. Andres can demonstrate that the paper made from the *Gnaphalium*, or Everlasting Plant, can be rendered whiter than the present samples, and that the cost of the raw material is lower than that of rags, it is not to be doubted but this discovery will lead to most beneficial consequences.

HEW RAMSAY, Chairman of Committee.
J. P. LITCHFIELD, M. D.
SABREVOIS DE BLEURY.
T. R. S. HUNT.
G. D. FERRIER.
W. A. TOWSEND.

Montreal, 10th March, 1855.

We would recommend that the following articles be sent to Paris:—1st, Mr. Lock's View on the St. Lawrence, near Brockville, and Falls of Niagara—crayons; 2nd, Mr. A. Morris's Chaudiere Falls 3rd, Kreikhoff's Scene in the Backwoods, Thousand Islands, and Winter Scene; 4th, Duncan's Quebec, Market at Montreal, and Canadian Cottage; 5th, Tubular Bridge; 6th, Mr. Keefer's Map of the Province; 7th, Mr. Evans's Agricultural Plans, 8th, Doane's Photographs; 9th, Autumnal Leaves; 10th, Binding by Miller and Young; 11th, Everlasting Paper. A few more Canadian Landscapes might be added. 12th, Stained Glass—Arms of England, France, &c, and Piece of Tracery Window; and 13th, the Three Specimens of Printing J. P. L., J. B., H. R., T. S. H., W. A. T., G. D. F.

Vegetable and Flower Seeds exhibited by George Shepherd.

14 varieties Peas,
19 do Kidney Beans,
5 do Carrot,
4 do Radish,
3 do Lettuce,
24 sorts of other Vegetables,
22 sorts of Flower seeds.

The 14 varieties of Peas:—Prince Albert, Spanish Dwarf, Fairbeard's Surprise, Matchless Marrow, Bishop's Dwarf, Queen of Belgium, Double Blossom, Woodford's Marrow, Burbridg's Eclipse Black-eyed Marrow, Emperor, Blue Scimitar, Dwarf Sugar, British Queen.

The 19 varieties Kidney Beans:—Small White Lima, Runners, Case Knife, Scarlet Cranberry, White Dutch, Half-Dwarf White, Dwarfs Late, Round Negro, Light Speckled, China, Solid Podded, White Canary, Canadian, Mohawk, Small Podder, Long Dutch White, Speckled, Negro, Brown.

The 5 varieties Carrot:—Altringham. Large Orange, Early Horn, White Belgian, Long Red.

The 4 varieties Radish:—Red Turnip, White Turnip, Olive-Shaped, Red Turnip. Salmon.

The 4 varities Onion:—Spanish White, American Yellow, Red.

The 3 varieties Lettuce:—White Cabbage, Tennis Ball, Hardy Green.

24 sorts other Vegetables:—Large Red Tomato, Small Grape Tomato, Long Prickly Cucumber, Short do do, Cayenne Pepper, Water Melon, Citron Water Melon, Green Flesh Melon, Cantelupe Melon, American Land Cress, Aniseed, Rhubarb, Carroway, Parsley, Salsofy, Nasturtiums, Summer Savoy, Sage, Leek, Russian Hemp, Canadian Hemp, Cress, Celery, Parsnips, Spinach.

22 sorts Flower Seeds:—Ageratum Mexicanum, Emilia Schonchifolia, Sweet Pea, Dianthus Sinensis, China Aster, Hibiscus Arficanus, Balsom, Gyposophila Elegans, Malope Trifida, Lupin, Dolichos Labotus, White Candytuft, African Marigold, French do, Galardia Picta, Larkspur, Ricinus Major, Mignonette, Convolvulus Major, Althea Rosea, Amarantus Speciosus.

Vegetable Seeds exhibited by Mr. Thayer.

Mammoth Tooth Indian Corn, White Pop do do, Red do do do, Black do do do, Sweet Indian Corn Yellow do do, Starch do do, Long Red Carrot.

Exhibited by Mr. Logan.

Box Mangold Wurtzel Seed, box Carrot Seed.

Exhibited by Mr. Benton.

Box of Small Drop Podder Kidney Beans.

Mr. Sprigings recommends the two boxes of Seeds exhibited by Mr. Logan, as worthy of accompanying the following to the Paris Exhibition:—

As Mr. Shepherd certifies the whole of the Seeds exhibited by himself to be Canadian growth, Mr. Sprigings recommends the whole collection, as worthy of being sent to the Paris Exhibition.

Mr. Sprigings also recommends that a collection of Mr. Thayer's Indian Corn be sent with Mr. Shepherd's Seeds.

RICHARD SPRIGINGS.

CLASS 16.

The undersigned Jurors, appointed by the Central Local Committee of the Industrial Exhibition, now holding at the City Hall, Montreal, beg to report as follows:—

LEATHER.

That the harness leather, sole leather and green cow-hide, offered by Mr. N. Valois, are not fair specimens of what this Province can produce. His waxed cow-hide split-leather are better samples.

HARNESS.

The set of single-sleigh harness, offered by Mr. Robt. Morris, is a true specimen of Lower Canada winter harness, and in point of workmanship is worthy of a place in any public exhibition, and entitled to the first prize on the present occasion. His worsted rosettes are very tasteful, and merit a prize.

The set of double-harness, offered by Mr. Courvette, is expensively got up, but without effect; the workmanship is good. The fact of the whole of the silver-plated mountings being of Canadian manufacture, merits particular notice, and upon the whole is worthy of a prize.

The set of light single harness, offered by Mr. Irwin, is well proportioned, and of good workmanship.

George Barrington's fancy harness, for the quantity of fine stitching deserves particular notice.

The set of Canadian cart harness, offered by Mr. N. Valois, is a good substantial article, with improvement in the back band, well adapted to heavy work, and entitled to the first prize for cart harness. His Canadian collar is well made, very fanciful and light, deserving a place at any public exhibition, and is entitled to a prize.

TRAVELLING TRUNKS.

The solid leather trunk, with steel spring top offered by Mr. R. Morris, is well contrived for convenience, durability, and in point of workmanship entitled to the first prize for trunks.

Mr. Robert Dean's trunks, of American style, are ingeniously planned and tastefully made.—His No. 1 trunk merits a prize for that class of trunk. His patent leather stretched valise is very well and tastefully ornamented, and is entitled to a prize.

Mr. R. Dean's largs pair of ornamented bellows is tastefully finished and of strong blast, well calculated for heavy forging, and

claims the first prize. His portable forge is an admirable invention, well adapted to out-door work; the clapper or valve being metalic, secures that part against the effects of damp, to which all apparatus for out-door work is exposed, and claims a first prize.

HOSE.

2 lengths of copper-rivetted hose, and fireman's smoke cap, are well made, and deserve a prize.

FURS AND SKINS.

Messrs. Greene & Sons bear-skin ornamented sleigh robe is very tastefully arranged, and worthy of notice for its variety of skins, and merits a prize. Their North-west mink victorine and cuffs, Jenny Lind and mitts, bonnet and gentleman's boa, and their musk-rat furs in imitation of mink, are also worthy of a prize.

Messrs McDowall & Atkinson's otter cap and gauntlets are of first quality of skins and well manufactured, and are entitled to a prize; as is also their water-proof silk hats, and bear skin sleigh robe.

Mr. Earnest Steinberg's railroad or bed-room mat is worthy of notice for its intermixture of skins, consisting of 1000 pieces, and is entitled to a prize.

CLASS 20.

BOOTS AND SHOES.

Messrs. Wm. Smythe & Co.'s case of boots and shoes claim particular notice, not only for its great variety, but its good style of workmanship, and merits the first prize. Mr. John Aitken's samples of goods in his line are worthy of honorable mention.

The Montreal manufacturing Company's rubber shoes are of good finish, great variety of shapes, and equal in quality to any heretofore imported.

Mr. N. Valois' beaver-skins and white lamb-skins are of first quality, of seasoned skins, and well dressed, and are worthy of notice.

PETER WARREN DEASE, Chairman;
W. G. STETHEM;
G. L. LOLLAND;
J. B. JULIEN;
D. PELTIERE;
JOHN THORNTON, Secretary.

CULTURE OF NORMAL SCHOOL GROUND.

In the last number of the *Journal of Education*, we find an interesting account of the results obtained from the cultivation of the farm and grounds attached to the Normal and Model Schools. During the year 1854, considerable progress appears to have been made in the planting of trees, and of shrubs and roots, and due attention seems to have been paid to what was new or rare, among either foreign or native growths. In the vegetable and fruit garden the result appears also to have been very successful. We append the report in the agricultural department, only regretting in reference to the various crops, that the quantities sown should have been so small. No experiments can be quite satisfactory when the produce is raised from the sixteenth part of an acre of land, and we trust that the Superintendent in future seasons, will be enabled to cultivate larger pieces of land.

Fall Wheat, White Flint:—⅛ acre sown after peas without manuring, produced 5½ bushels, weighing 60 lbs., or at the rate of 44 bushels per acre.

Spring Wheat, Cape root:—sixteenth acre sown after Indian corn, without manuring, produced eighteen bushel, weighing 55 lbs., or at the rate of 18 bushels per acre.

Spring Wheat, Fife sort:—sixteenth acre sown after Indian corn, without manuring, produced 2¼ bushels, or at the rate of 36 bushels per acre, and weighing 58 lbs per bushel.

NOTE.—Thus, under the same treatment, the last named sort of spring wheat produced exactly double what was obtained from the first. The growth of both sorts was about the same, and both looked equally well on the ground before reaping.

Barley, Common:—⅛ acre sown after potatoes, without manuring, produced 6 bushels, 1½ pecks, weighing 45½ per bushel, or at the rate of 51 bushels per acre.

Barley, Common:—⅛ acre sown after turnips, with slight dressing of street-scrapings, produced 7 bushels, ½ peck, weighing 50½ lbs. per bushel, or at the rate of 57 bushels per acre.

NOTE.—Thus, from the small amount of ammonia returned to the land from the street-scrapings, we have a difference to its credit of 6 bushels measure, and each bushel of the whole, 5 lbs. heavier: or 2320½ lbs. from the one, against 2878½ lbs. from the other, leaving a balance of 558 lbs. per acre, to the credit of the dressing of scrapings. Yet the heaviest of these lots scarcely comes up to the last year's rate, when the land was new, and full of stored ammonia.

Indian Corn, White and Yellow:—⅛ acre planted in hills about 3 feet square, apart, produced 15 cwt., or at the rate of 6 tons per acre, being a deterioration from last year's rate of 4 tons per acre.

Cabbage, Quintal:—sixteenth acre produce about 2¾ tons, being about 2 tons per acre heavier than any rated last year.

Cabbage, St. Denis:—Some very large heads were produced, but being attacked by maggots or root-disease before coming to maturity in general no calculation could be made.

Cabbage, Savoy:—Rated somewhat under last year's, when the avarage per acre was 29 tons.

Cabbage, Red Dutch:—Some heads larger than any last year, but the rate per acre was 2 tons under that rate, which was 23 tons.

NOTE.—The Quintal, and next to that, the St. Denis, cabbage is the mos profitable for field culture, but for the standard crops the Quintal. For although the St. Denis brings a very large heavy crop in rich land, yet, being more liable to root-diseases, it cannot be pronouced so safe for a general crop. The Drumhead Cabbages partake somewhat of the nature of the Quintal, and are generally hardy and luxuriant growers, but they do not cabbage so well nor so equally.

Swedish Turnip.—Produced a crop which would average about 34 tons per acre.

Potatoes, Early Ash Leaved:—Below last year's average per acre.

Do Early Juices:—Below last year's average per acre by 10 bushels, it being 184 bushels.

Do Mechanics:—Below last year's average, by 15 bushels, it being 260 bushels.

Do Pink Eyes:—Below last year's average by 18 bushels it being 380 bushels.

Do Irish Cups:—Below last year's average by 6 bushels, it being 410 bushels.

NOTE.—These were all planted in one square, where potatoes never grew before, following a crop of oats, were moderately manured, with a mixture of horse and cow manure, and yet all fall short of last year's average; but especially the more dry and farinaceous sorts, as the *ash-leaved*, the *pink-eyes* and *mechanics*; while the late and more juicy and waxy sorts came nearer the last year's rate, which, compared with the defection in Indian corn and other grains, would seem to show, that the past season has been unfavourable to the perfecting of farinaceous matter in grains and roots. In this matter, the experience of those who may have been operating on a larger scale, or of those who may have been making observations or enquiries in the country generally, would be very interesting.

Carrot, Dutch Horn—Below last year's rate per acre by 2½ tons, which was 31½ tons.

Do Altringham:— do do by 1½ tons which was 36 tons.

Do White Field;—Above last year's rate per acre by 3 tons, which was 43½ tons.

Blood Beet:—Below last year's rate per acre by 8 tons, which was 42½ tons.

Mangel Wurzel:—Above last year's rate per acre by 2 tons, which was 55 tons.

Sugar Beet:—Above last year's rate per acre by 6 tons, which was 28½ tons.

Dutch Parsnip: by 1½ tons, which was 20 tons.

NOTE.—Regarding these roots the same observations noticed of potatoes and other grains are also applicable; insomuch as all the more solid, and those coming the nearest to farinaceous fall below the last year's rate of produce, while those of a more watery and luxuriant nature considerably exceed the rate of last year.

Grass, Varieties:—One acre produced 2¼ tons from the first cutting, 1½ tons from the second cutting, and one ton from the third cutting; in all 4½ tons of dry hay, which I consider a large yield; taking into account that the first cutting was composed of more than half clover, and the two last cuttings were nearely entirely clover,

In the sub-divisions of the grass, that sown with a portion of ryegrass, (*solium perenne.*) and red and white clover, produced the best and greatest weight of hay. That sown with Lucerne, Timothy, and White and Red Clover came next. While on that sown with Clover and Timothy only, the hay was entirely Clover. This of course was in consequence of the Timothy never rising much the first year after being sown. While it is not certain how the Rye-Grass and Lucern may do another year, or whether they may resist the effects of another winter and spring, yet even if they should not altogether prove so permanent as Timothy, form an important and valuable addition to the first year's crop of hay for overbalancing the expenses and trouble of seed and sowing.

The proceeds of the sales of the produce of the grounds in 1854, amounted to the very fair sum of about $168.

I have the honor to be,
Reverend Sir,
Your Obedient Servant,
(Signed,) Wm. Mundie,
Superintendent of Grounds.

To the Rev. Dr. Ryerson,
Chief Superintendent of Schools.

FARMERS' CLUB AT GUELPH.

A meeting of the Club took place yesterday week, at the British Hotel, Guelph.—In the absence of Col. Saunders, who was obliged to leave just as the proceedings commenced, the Chair was occupied by John McCrea, Esq. The following Address was delivered by Mr. Thomas Kench:—

Mr. President and Gentlemen,

I rise agreeable to request, to introduce for discussion this evening, "The subject of Drainage." A subject of such vast importance, not only to the Agriculturist, but to the human family generally, that I may well wish it had fallen into abler hands than mine; but if the small amount of information which I may be able to impart to you on the subject should be the means of drawing knowledge from more experienced persons, I shall not regret having made this attempt.

I cannot better introduce the subject than by calling your attention to an idea that has often struck me, and I dare say many of you present, that is—the similarity of the circulation of the blood through the animal system, and the distribution of water over the surface of the earth. The Heart in the animal being the reservoir to supply the vital fluid to the extreme part of the frame; the Ocean its counterpart in the world, distributing the necessary fluid, water, over the face of the earth. "The rain cometh down, and the snow from Heaven, and returneth not thither, but watereth the earth and maketh it bring forth and bud, that it may give seed to the sower and bread to the eater." Or in other words, rain, dew, snow and hail are the agents used by Providence for supplying the necessary fluid for the support of animal and vegetable life, the springs, rivulets, brooks, and rivers, the veins which carry it back to the great heart, the Ocean. Now we know that if the free circulation of blood be stopped in the animal system, disease and sometimes death is the consequence; much the same result takes place in the vegetable world, for any man having a piece of wet land, may very properly term that piece diseased, the remedy for which must be a drain. Although I do not consider myself well posted up in the science of draining, yet I am a great advocate for it, having experienced its benefits, and in order to induce others who may be troubled with wet fields, to give it a trial, I shall now state a few of the advantages to be derived from it; but first I will mention to you I cannot exactly recommend you to try the system of thorough draining now so generally practised in the old country. I am perfectly convinced of its very great advantages, but taking into consideration the circumstances of this country, it is true we are getting at the present time great prices for our produce, but we, at the same time find that labour has increased in the same ratio, and draining is an undertaking in which labour forms the principal item. I have heard of a Joint Stock Company for draining being about to established in this country: when they get into operation we may be able to count the cost with greater exactness, and see whether it would be prudent to follow the practice of our agriculturists at home, but at present I think it would not be so.

A few of the advantages to be derived from draining are, the removing of superfluous and stagnant water which is the fruitful source of Fever and Ague, and many other diseases from our farms, converting a putrid pool into a limpid stream, serviceable alike to man and beast, and allowing useful crops to grow on the ground it occupied, a saving of time in the operation of ploughing, should the water-hole happen to be in the middle of your field—causing you to take two turns when one would do, allowing you to commence your springs work in that field some ten days or more earlier than if it were not drained, the removal of an eye sore, (which to a tidy farmer who never can like to see waste spots about his farm is an object of no small importance) and helping in a very great degree to ameliorate the climate of this his adopted country. Such gentlemen are a few of the advantages to be derived from draining only those portions of your farms, which without it you would not be able to put the plough in, advantages I should think sufficient to cause any reasonable man who may be troubled with swails or frogs ponds to try and remove, which he may do by a drain.

With respect to the various kinds of drain in use, long continued experience in Britain has shown that the pipe drain having a bore of about one inch and a half diameter, is the most durable and efficient of all the various modes practised for draining the soil.—I may here mention that a machine has been invented in the old country for placing these pipes in the ground, a full description of which may be found in the Canadian Agriculturist of September, 1851, or the Illustrated London News about the same date. The expense of laying the pipe with this machine is about 4d per chain, it lays 90 chains per day, at a cost of 30s.—Could we work so, cheap, I should be of a different opinion with respect to thorough draining in this county—Road metal or pebble drains come next in efficiency but are not so durable. In the United States, brush, that is, tree tops has been used for the same purpose. In a strong clay subsoil a drain may be constructed by cutting a trench two feet deep, fifteen inches in breadth at the top, twelve inches at the bottom, then by using a narrow spade made for the purpose, sink your drain about ten inches deep, three to four inches in breadth, leaving a shoulder on each side on which you may rest slabs to form the covering of your drain; fill in then first with the clay, and firmly stamp it, then fill the remainder with the soil. A drain of this kind will in a strong clay soil answer very well; round poles placed longitudinally, I have used in a a short drain from my cellar, the water passing through the interstices between the poles; it has been in use about nine years and never failed; but the kind I have most used is the stones gathered off the land placed edgeways, nearly perpendicular and covered well on the top with small stones; when much water is expected I then make what I call a pipe, that is a stone placed on each side of the drain to form as it were the side walls, then cover with large stones, no matter what shape so that they are firmly placed, which forms the pipe, then cover with small round stones on the the top.

Mr. Hind, one of the Masters of the Normal School, Toronto, who has written a great deal on Agriculture, recommends for trial a drain made in the following manner; dig a trench to the depth of three feet, fifteen inches in breadth at the top, and gradually sloping downwards, until at the depth of 32 inches it is no more than 4 inches in breadth, the remaining 4 inches are to be cut in such a manner as to leave a base of two inches at the bottom, 3 planks being one or two inchess in thickness, 4 or 5 inches in breadth, and of any convenient length, are then to be placed at the bottom of the open

ditch so as to form a triangular box, resting upon a plank 2 inches in breadth.—Mr. H. is of opinion that a drain so constructed would last longer than the road metal or pebble drain; he recommends it to be made of cedar plank. I have never seen a drain of this kind in operation, but think it might answer. In low moist ground where a fall cannot be obtained to let off the water without considerable labour, very beneficial results have been obtained by cutting a drain in the usual way, only here and there in your drain sinking holes 3½ to 4 feet deep, and filling with small stones to the depth of one foot; this supposes that the holes would cut through a stratum of clay or other compact soil which held the water and allowed it to escape into a more porous soil; sometimes there may be a sand or gravel hill convenient to such a place where the drain could be run into a hole cut much in the same manner, and would most likely carry off all the superfluous water.

I now come gentlemen to my own experience or what I have done myself; should my description not happen to be thoroughly understood, I shall most willingly give all the information in my power to any one requiring it.

It was my misfortune to locate on a wet lot when I first settled in this country, the person who showed me over the land pointed out the bed of a creek which at that time was quite dry, (it was in the month of August, 1832.) and added that a creek running through your lot was a very great advantage;" that promised advantage turned out a positive loss, for when I wanted water most for my cattle, &c., that creek was dry, but it kept wet long enough to prevent me getting in my crops as soon as my neighbors and caused me to lose the product of a great portion of land by spreading into all the low places in its course; my first object was to confine this creek into as small bounds as possible, which I did by cutting a trench sufficiently large to carry all the water and as straight as possible, choosing the lowest ground for my line of drain; thus, my first step in draining changed a considerable part of what had been wet land into dry, and enabled me to perform the operations of ploughing and dragging, in somewhat like a tidy manner, not having to follow the tortuous course of my serpentine creek; it likewise kept the water from spreading over the low places of my field, which not getting its accustomed supply soon became as dry as the rest of the field.

Having found such beneficial results from my first attempt, I now began to think that I could recover some of the swails and frog ponds which were the sources or spring head of the creek, (I should tell you I had not a field without one or more of these nuisances) I found that I had plenty of fall to carry off the water from all the holes by cutting rather deep in some places through a bank here and there, and leading them into the aforesaid creek, which had now become my main drain.

I began with a cut through a black ash swail (at that time not chopped)continued it through a bank of dry soil that intervened between it and a frog pond, which in the driest time in summer a person would scarcely venture to walk through, a small drain 18 inches wide at the top, 12 at the bottom and varying in depth so as to get the level and depth sufficient in the pond to cover the stones and allow the plough to pass has laid the whole so dry, that I can not only plough but drive a load of grain through it without the least danger of sticking. I have since run another at about right angles from this into another hole with the same result, in fact not to trouble you with a repetition of the number of drains I have made, I will merely state that I have now about 120 rods of open, and about 110 of covered drain, all in effective operation; the result of which is from having one of the wettest farms in the neighborhood, I have now a dry one, can commence ploughing in spring as soon as any of my neighbours,beside changing a considerable piece of waste land into productive, got rid of all my swails, frog-ponds, &c., can now plough right through them, and caused their inhabitants, the "Canadian Band" to remove to other quarters.

With respect to any instructions that I may be able to give to persons about to commence draining, they will of course be but general, the limits of this short address not allowing me to go into lengthened particulars, which would have to be governed by local circumstances. Most writers on the subject consider draining an art in itself, requiring an acquaintance with the characteristics of springs, soil and climate, besides a practical knowledge of levelling, in fact, according to their theory, a man, to attain excellence in this useful art, must be a *scientific* man.—Now in my little experience, I have found no difficulty. Of course I never attempted to make water run up hill, and most of the persons present know that we "Backwoodsmen" are in the habit of doing many things that at home would require the assistance of a "Professor."

To persons who may be troubled with too much water on their farms, I should say look for the lowest track you can find, it is sure to be indicated by some appearances not to be mistaken, the herbage will look greener in that part; or at the breaking up of the winter mark the course the greatest stream of water takes, let that be the line of your drain, you need not follow all its windings, but keep as straight as possible, so as to take in its course the lowest spots. The size of your drains must be governed by the quantity of water that will have to pass through them, I have generally cut mine that I have covered about 2 feet wide at the top, 3 feet deep on an average 1 foot wide at the bottom, but had they been stoned up immediately, — which mine were not—they might have been narrower at the top, this was the size of those that I call pipe drains, but those for the stones placed edgeways were considerably less, of course the smaller your drain the less it will cost you in labour, provided it be large enough to carry the water; open drains should be cut with a good slope to the bank to prevent falling in. Begin to cut at the lower end and cut upwards; should there be any water, you will have a very good guide for your fall, which need not be very much, an inclination of 1 ft. in 300 being quite sufficient. Commence to stone at the upper end of your drain, keeping the bottom perfectly free from all debris, so that there will be no stoppage to free passage of the water. For the pipe drain look out the best stones, to place on the side, edgeways if they will suit, or two placed one on the other, to form the support of your covering stones, leaving a space between them of 3 or 4 inches and about 4 or 5 in depth, but be sure to place them perfectly solid, then put on your covering stones, which I have said before, may be any shape, so long as they rest firmly on the side ones; then fill in the interstices that may be left between the coverers with other suitable stones, taking care that by no possibility they may pass through, so as to stop your drain, then fill in with small stones sufficient depth to prevent all dirt from working into the drain, cover with a coat of straw or thin sod, pared from the side of the drain, after which, fill in your soil. The only difference in constructing the other drain which I have, is to place a flat stone perpendicular with the bank, then place another on the other side, leaning against the first, so as to form a triangular space for the water to pass through, and wedge the last with stones betwixt it and the bank, then cover with small stones and straw as before.

Some persons prefer this last mode of drain in perference to the other.—considering it not so liable to choke. I have had both in operation for 4 or 5 years; no stoppage has ever taken place with either.

I have found great benefit in moist ground by ploughing into narrow ridges, leaving a good deep furrow between them to empty into an open drain: this has kept the surface water in Spring, from lying too long on the wheat, and prevented a great deal from being hove out.

I have now nearly exhausted my stock of information on the subject of draining, and I conclude by mentioning a circumstance which may tempt others who may be troubled with stagnant water as I have been, to try and remove it. For four or five years previous to getting my drains in operation, I was suffering from a complaint, called by some the Dumb Ague; the late Dr Alling, to whom I applied for relief, termed it intermittent fever; be what it may, it was a troublesome complaint; the Dr. termed it very obstinate—he did me but little good

as regards curing it, but since I have got rid of the stagnant water from my farm, I have never been troubled with the same complaint. This may or may not be owing to the drains but we all know stagnant water and decomposed vegetable matter some of the principal causes of fever and ague and as it should be the wish of every right minded man to try and leave the world better than he found it, I cannot do better than strongly recommend draining wherever it may be needed.

Some discussion followed the reading of the Address; but what had been advanced by Mr Kench was unanimously approved.—Mr Wright spoke in favour of stone Drains, where Drains were required, and stone could be had; and stated that he had drained a swale on his farm by such means, and the first crop afterwards more than paid for all the trouble.

Mr Davidson remarked that different sorts of soil required different sorts of drains. He described several sorts of drains which he had seen constructed, and remarked that in every case the sort of drain must depend upon the position of the land to be drained, the nature of the soil, the material to be had and the judgment of the person doing the work.

Mr Harland, with some remarks complimentary to Mr Kench, moved that the thanks of the Club be given to him for his very able essay: which was unanimously carried.

It was then agreed that the subject for consideration at the next meeting of the Club, should be, "The nature and property of Manures, and the best method of applying them." The subject to be introduced by Mr C. Davidson. Club to meet again on last Friday in March.

THE CHINESE SUGAR CANE.

From the following article, by Professor Lindley, in the "Gardeners' Chronicle" of 20th January, 1855, it seems probable that Europe is likely to be benefitted by the introduction, from China, of what is termed "Holcus Saccharatus," which, besides yielding a large proportion of crystallisable sugar, affords a large quantity, not crystallisable, but of value to the purposes of the distillers. The plant, it seems, is fitted to thrive where there is, doubtless, plenty of rich deep land capable of raising this new sugar cane. Altogether, the matter seems so interesting and useful that we consider it proper to lay the article referred to before our readers.

The nature and proportions of the substances that the plant contains will, however, be best understood from an analyses which has recently been made, the results of which are as follows:—

	Per cent.
Water	63.88
Sugar, crystallisable and not crystallisable	18.64
Nitrogenous substances	1.06
Resinous, fatty and colouring matters	0.50
Woody fibre	15.41
Salts soluble in water (sulphates and cholrides)	0.27
Insoluble salts (of lime and oxide of iron)	0.23
Silica	0.01
	100.00

The above analyses was made from the middle portion of a stem but, in consequence of the plants having been injured by carriage, it was found impossible to separate the crystallisable part of the sugar from the uncrystallisable. At all events, it appears that the richness of the plant in sugar is very remarkable.

The juice of the Holcus furnishes, M. Vilmorin observes, three important products:—Sugar, alcohol, and a fermented liquor analogous to cider. When the juice is obtained from peeled canes it is almost colourless, and may be said to consist of merely sugar and water. Its density varies from 1.050 to 1.075, and the proportion of its sugar from 10 to 16 per cent. Sometimes, however, as much as a third of the total amount of sugar is not crystallisable, and to this circumstance is attributed the facility with which the juice enters into fermentation, and the large amount of alcohol it affords compared with the quantity of sugar directly indicated by the saccharometer. From this it appears that the saccharine matter of the plant cannot be rendered wholly available in the sugar manufactory; for about one-third of it is lost. On the other hand, the state in which that one-third exists is considered the most favourable for the driller, and for preparing a fermented liquor resembling cider. It is not expected that the Holcus can compete with Beet as regards marketable sugar produce in the north and middle of France: but in the south of France and Algeria, or indeed in any region between where the Sugar Cane ceases to thrive and the 44th degree of latitude, the Holcus may be profitably cultivated for sugar. Elsewhere M. Vilmorin concludes, from the results of his experiments, that it will be most advantageously cultivated for its alcoholic products. Its value in this respect may be estimaled by the result of some experiments which he has made

He obtained from stems, from which the peel had been stripped, at the rate of from 55 to 60 per cent. of juice. The upper joints and spikes were only cut off; but by cutting off more, and subjecting the stems to a better process of crushing, he thinks that 70 per cent. of juice could be obtained. The quantity of stems employed, large and small together, was 553 lbs., which gave 23 gallons of juice, of the density of 1.052; and as the pressing was done in a common cider press, he estimated that upwards of 3 gallons were lost in moistening the large surfaces of the apparatus. The proportion of sugar which the juice contained, as indicated by the saccharometer, was as follows, from plants grown at Verrieres, and taken at different periods:—

SUGAR.

October 22, 1853	10.04	per cent. of juice
Nov. 18, 1853	13.08	„ „
2nd trial	14.06	„ „
October 13, 1854	10.14	„ „
Nov. 14, 1854	16	„ „

which 11¾ were crystallisable and 4¼ not crystallisable.

The quantity of pure alcohol was determined by the direct mode of fermentation, and the amounts are given in the order in which they were ascertained.

Juice from plants grown at Verrieres:—
Sept. 28, 1854 4.1 per cent of pure alcohol.
Oct. 4, 1854 5.4 ditto. ditto.

Juice from plants grown in Algeria:—
FIRST FERMENTATION, OCT. 17TH, 1854.
7.0 } by SALDERON'S appa-
Second trial 7.4 } ratus.
7.0 to 7.2 by distillation.

Juice of plants grown at Verrieres:—
Oct. 20 .. .. 7.251 by distillation.
Nov. 16 .. .. 6.236 panicles cut.
Nov. 17 .. .. 6.467 panicles not cut.

Omittiug the results of the trial made on the 28 of September when the plants were evidently too young, and those with plants grown in Algeria, it appears that the average quantity of alcohol for the climate of Paris is about 6.3 per cent., or at the rate of 6 3-10 gallons of pure alcohol from 100 gallons of juice.

This per centage is considered very satisfactory, especially M. Vilmorin observes, when the excellent quality of the spirit is taken into account. The best idea of the value of the plant will, however, be obtained by calculating from the results of the experiments the produce per acre, according to which the yield is as follows:—

Stems and leaves 68,938 lbs., or upwards of 30 tons.
Stems only .. 43,984 „ „ 19 tons.
Juice, at 55 per cent. of weight of stems .. .. 2415 gallons.
Sugar calculated at 8 per cent. of juice .. .. 1935 lbs.
Pure alcohol, at 63 per cent. of juice .. .. 182 gallons.

For comparison with the above, the average produce of Beetroots per acre:—

Roots .. .. 40,147 lbs., or nearly 18 tons.
Juice, at 80 per cent. of weight of roots .. } 32,118 lbs., or upwards of 14 tons.
Sugar at 6 per cent. of juice .. } 1927 lbs.
Pure alcohol, at 3 per cent. of Beet .. .. } 120 gallons.

It will be observed, that the quantity of sugar from the Holcus is estimated higher than that from the Beet-root; but the small difference would not compensate for the extra

labour required for preparing the canes, and for the greater difficulty in extracting. The quantity of spirit, however, far exceeds that derived from Beet-root, the difference upwards of 60 gallons on the produce of an acre.

A liquor resembling cider can also be made from the Holcus, and said to be very good when properly prepared. The quantity of juice, according to the above figures, would be 1207 gallons from the produce of an acre. For making this liquor, the canes require to be either exposed to the sun for several days, in order to concentrate the juices by evaporation, or to be placed in a slow oven; or the juice after being pressed out must be boiled down to the required density, along with about 7 oz. of fresh Oak chips for every 22 gallons of juice. The juice readily ferments with the addition of a little yeast,or with a bunch of Grapes squeezed into it.

These statements, which are entirely taken from M. Louis Vilmorin's ample reports, appear to show that the Holcus may be profitably grown in this country for distillation, provided the Excise makes no objection. But we learn from Mr. John Henderson, that the refuse, which has not been at all considered in France, consists to a very great extent of excellent fibre easily extracted and easily bleached. We have ourselves ascertained that such a fibre is worth at least £10 a ton to the paper makers, and probably half as much more. This very importnnt fact seems to remove all doubt as to the value of the Holcus to cultivators.

It may, indeed, be an exhausting plant, like Maize and other white crops; but deep cultivation will meet this difficulty, if it be one, and at all events the value of its sugar and its fibre, taken together, ought to leave a handsome profit, even althongh an unusual quantity of manure should be necessary to replace what it may take out of the ground, supposing always, that the refuse left after distillation and the extraction of its fibre should not of its self represent as much as the crop has taken off.

For further information upon this interesting subject, the reader is referred to M. Louis Vilmorin's report in the new volume of the "Bon Jardinier," and to a detailed account of the Holcus cultivation which we understand Mr. Henderson is about to publish.

ON THE GROWTH OF MANGOLD WURZEL.

By Professor J. Buckman.

When mangold wurzel was first introduced into farm cultivation, its great recommendation seems to have been that while its roots contained a large quantity of succulent and nutritive matter, suitable for all kinds of stock, its leaves were no less valuable for feeding purposes, so that its growth was advocated much upon the supposed grounds of a capacity for simultaneously producing two crops. Experience has however, long since taught us that though the mangold be a plant yielding a large amount of produce when properly cultivated, yet that, by endeavouring to obtain too much, we in reality get less, and this is confirmed by direct experiment. Hence the author of "Practical Agriculture," fifty years since, made the following remarks:—

"It is probable that, upon the whole, the root has neither been found to be equal in quality, as a cattle food, or to afford the quantity of produce that was supposed on its first introduction."* Now this becomes perfectly intelligible when, as we learn from the "Annals of Agriculture" for the same period.

"The plants seem to have afforded a large produce of leaves when gathered every two or three days, from July till late in September, the whole produce in leaves and roots is not equal to that of the large Cabbage." Such is the experience of 50 years since, and yet after a lapse of half a century we find mangold wurzel extensively cultivated, and its root is demonstrated alike by practical experience and scientific investigation to afford a highly valuable, because eminently nutritious, crop. The reason, therefore, of this discrepancy of opinion, and its resulting increases of growth in modern times, must be sought for in the fact of an improvement in management, the most important change being that of non-mutilation. We now care not for the leaves, and as will be shown in the sequel, we therefore obtain, not only a larger quantity of the root, but this is improved in its nutritive capabilities. That the root is injured in its growth by depriving the plants of their leaves will be at once gathered from the following experiments, which were instituted on purpose to obtain evidence on this very point.

In May of the past year were sown five sorts of mangold wurzel; two rows of each were ridged, and cultivated in exactly the same manner as those in the farm, and the ground for the whole prepared alike. When, however, the roots had attained the size of of about 1½ inches in diameter, a single row of each sort was closely stripped of all the outward leaves by carefully cutting them away with a sharp knife so as not to produce injury by tearing, a process which was from time to time repeated as often as the outer leaves had again attained to a size to be used as a feeding matter. The result of this treatment was as under, weighed in November, 1854:—

Sorts of mangold wurzel.	Leaves intact.	Leaves cut.
1. Red Globe.....	31.0	23.5
2. Yellow Globe....	45.0	18.5
3. Long Red.....	49.0	81.0
4. Long Yellow.....	35.5	18.0
5. Long White.....	32.5	19.5
Total for the five sorts	193.0	97.5

* Quoted from the "Complete Farmer." 1807.

Here it may be noticed that the resulting produce of the uncut when compared with the cut plants, in an average of five sorts, is within a fraction of two to one, of nearly double, and it will be seen that while the Yellow Globe and the Long Red when uninjured have produced the largest crops yet that they suffered proportionably more from mutilation; in each case less than half the amount of root resulting from the injured when compared with the uninjured. These experiments, therefore, while they show the effects as far as the roots are concerned of destroying the leaves, fully justify the favour in which the Long Red and Yellow Globe Mangold are held, at the same time making it appear that those kinds which yield the largest return, if rightly cultivated, are just the ones that suffer most from an opposite method. Having now shown a diminution of the crop to result from injury to the leaves, I go on to furnish evidence to prove that even this smaller amount is at the same time deteriorated in quality. Upon this head it would be sufficient to notice that the practical farmer was dissatisfied with the cultivation of mangold wurzel while the vicious system prevailed, the reasons for which, however, have been amply proved by experiment and chemical investigation. In a report of "experiments made by Dr. Wolff, Professor of Chemistry to the Royal Agricultural College of Hohenheim, in Wurtemberg," published at Leipsic during the preceding war, we learn that two sorts of mangold wurzel were grown—namely, the Globe and Long Red varieties, from which the leaves were taken off for feeding purposes in September and again in October, and the result of twice stripping the plants of their leaves was a diminution in produce amounting to one-fifth; it is therefore no wonder that four or five times stripping off the leaves should diminish the produce of the root one-half, as in my own experiment, still less that the gathering of the leaves every two or three days, from July until late in September, have caused this useful plant to be slightly spoken of 50 years since.

As in my own experiments, those of Dr Wolff show that the amount of root suffers greatly when the leaves are removed, but this is not all; for chemical analyses of the root where the leaves were intact, when compared with those in which the leaves were taken off, make it evident that not only is there a diminution in quantity but a deterioration in quality of the latter—facts which will be explained by the following table of the composition of two varieties of mangold wurzel in two methods of growth in the fresh state:

	1. Globe variety.		1. Long variety.	
	Leaves taken off.	Leaves intact.	Leaves taken off.	Leaves intact.
Woody fibre,	0.869	0.843	0.936	1.004
Ash . . .	1.010	1.050	0.943	1.125
Sugar . . .	5.076	6.183	4.594	5.365
Pectin Gum,&c.	2.605	1.090	3.201	4.024

Protein Compound . .	.937	1 019	0 772	1.000
Water . .	89.494	89.815	89.554	87.472
	100.000	100.000	100.000	100.000

Now, in this table we cannot help remarking upon the great increase in the most important feeding elements, sugar and protein or nitrogenous substances, matters, may be persumed, which would be still farther lessened by a greater denudation of such important plan organs as the leaves.

However, in estimating the good or injury which finally results from the plan of growth commented upon, it may be a matter of consideration as to whether, the leaves in their value counterbalance the injury to the roots, as it is quite evident we cannot get the leaves into the bargain of a good crop of roots; and here I would remark, that I think the value of the leaves as a feeding stuff has been much over-rated, and this is confirmed by D. Wolffs experiments, who also adds that the leaves are very apt to produce diarrhœa in cattle. The following table from this author gives the result of experiment to test the qualities of milk as obtained from cows fed with aftermath, as compared with feeding from mangold leaves.

Composition of milk in these cows.—

A. PRINCIPAL FOOD AFTERMATH.

	1.	2.	3.
Dry substance.....	12.47	12.49	11.39
Water.....	87.53	87 51	88.62
Butter in Milk.....	3.13	3.39	2.53

B. PRINCIPAL FOOD MANGOLD LEAVES.

Dry substance.....	11.30	12.08	11.04
Water.....	88.79	87.42	88.96
Butter in milk.....	2.60	2.83	2.20

These results show a large decrease of an important constituent of milk—namely, butter, from which we may conclude that the plan of using mangold wurzel leaves is by no means satisfactory in dairies, where it has been specially recommended.

Here, then, to sum up our conclusions upon what we may term the economics of mangold wurzel growing, and leave out all reference to the physiology of the question, the case will stand as follows:—1st. The leaves of mangold wurzel canot be systematically taken from the growing plant without lessening the quantity of roots in proportion to the closeness with which the operation is performed. 2. The decreased quantity of roots does not yield so large a percentage of nutritive matter as are contained in those that are uninjured; and 3rd. This injury to the roots is by no means counterbalanced in quantity or quality by any value that we might attach to the leaves.

DOES FREEZING DESTROY VEGETABLES?

Mr. Editor,—It is the prevailing idea that freezing destroys or renders almost useless, potatoes; apples, the various kinds of garden vegetables, house plants and roots.

For the benefit of all who may regard it, I send you the result of my experiments in this department of useful knowledge.

In the month of November, before the ground froze, I dug a trench in my garden about twenty feet long, varying in depth in two, four, six, eight ten and twelve inches. I placed potatoes, apples, beets, carrots, onions, and turnips, and carefully covered them with the earth therefrom.

In the spring I opened the trench and found that those covered only two inches were mostly decayed—and all those of four inches and upwards in a perfect state of preservation.

I also put eight or ten barrels of apples in a cold chamber, carefully surrounding and covering as the weather became cold, I examined and found them frozen. I took a quantity in a box surrounded by saw-dust placed them in the cellar; in a few days when the frost was out, they were as perfect as before freezing—also those in the barrels in the cold chamber, so far as they were covered from the effect of air and light.

I also left the head out of one barrel in the cold chamber; the apples being covered three or four inches with saw-dust. When the frost was out, those nearest the top were not so perfect as those which had been covered in the tight box above mentioned without sawdust. From a variety of experiments on the same subject there exists little doubt that light, air, and electricity are important agents in the destruction of vegetable life in certain conditions, as well as aids in the mysterious process of vegetation and fructification.

The manner of thawing and not of freezing destroys vegetables, plants, vines, &c. Sand is preferable to saw-dust, being less porous. Garden vegetables, left out by accident, will be safe if covered with earth.

Upon the subject of vines and plants, it may be sufficient to state that I had in my garden, a very tender white grape vine, which had been killed by frost for several years in succession from neglect of the former occupant.

I left it uncoverd until the first cold weather came, and with it six or eight inches of snow. The vine was so thoroughly frozen that with difficulty it could be removed from the frame. I bared the ground, coiled it in a small space, and covered it with straw, chips, and earth about six inches deep. My neighbors who knew the vine, shook their heads, adding, "your next year's crop will be all leaves." The vine was uninjured, and the next year bore grapes abundantly.

M. R. Fletcher.

Portland, Dec. 7, 1854. State of Maine.

ON THE USE OF LIME.

Lime may be said to have six important uses in its application by the agriculturist. 1. In being a constituent of the plant; 2. In hastening the decomposition of vegetable matter; 3. In neutralising acids which may collect in the soil; 4. In decomposing various aluminous compounds, bone manure, &c., also injurious salts of iron, forming an inert oxide of that metal; 6. Frequently it acts the part of "farmers' friend," when a grub has been destroying a portion of his crop, or if applied previously in preventing such an untoward disaster; and lastly, though by no means least in importanee, it acts mechanically upon "clay" lands by materially assisting to diminish their tenacity. To effect the whole of these objects the lime must be burnt; thus driving off its carbonic acid; then it is "slacked," when it immediately enters into combination with the water forming a "hydrate." Having examined my soil and found a small per centage of lime, I caculated what proportion ought to be applied per acre; this quantity is put on the land in the shape of quicklime, and spread over the Clover brush for two reasons; 1. Because I wish to decompose the Clover roots, that they may have a beneficial effect upon the Wheat crop which follows; and 2ndly, to destroy any slugs a Clover field is likely to harbour. One other point connected with lime;—Should lime be applied in small quantities, and at long intervals? I am an advocate for the former, and why? 1. Because (reasoning from analogy between plants and animals) we do not find, in most cases, that the larger the dose a patient takes the better he is after it, or that a man who (supposing such a thing could happen), having eaten two dinners at the same hour, is quite as free from dyspepsia as one who has taken a moderate meal. 2. Every practical man knows that lime has a tendency to descend in the soil, and getout of the reach of the plough, therefore it follows that if you get a large layer of lime upon the soil, say once in twelve years, it is not likely to afford such an even supply to the plants as if the amount you then applied had been divided into three portions, and one of these laid on every four years.—*Science with Practice.*

PRESERVATION OF APPLES.

The following valuable observations contained in a letter from Noah Webster, Esq., have been published in the Massachusetts Agricultural Repository.

It is the practice of some persons to pick apples in Oct., and first spread them on the floor of an upper room. The practice is said to render apples more durable by drying them. But I can affirm this to be a mistake. Apples after remaining so long on the trees as safety from the frost will admit, should be taken directly from the tree to close casks, and kept dry and cool as possible. If suffered to lie on the floor for weeks, they wither and lose their flavor without acquiring any additional durability. The best mode of preserving apples for spring use, I have found to be the putting them in dry sand as soon as picked. For this purpose I have dry sand in the heat of the summer, and late in October put down the apples in layers,

with a covering of sand upon each layer. The singular advantages of this mode of treatment are these: 1. The sand keeps the apples from the air, which is essential to their preservation. 2. The sand checks the evaporation of the apples, thus preserving their full flavor—at the same time any moisture yielding by the apples (and some there will be) is absorbed by the sand, so that the apples are kept dry, and all mustiness is prevented. My pippins in May and June are as fresh as when first picked; even the ends of the stems look as if just separated from the twig."

CROSS-BRED SHEEP.

A friend of mine purchased 12 months back a number of Welch mountain ewes, the average price being about 13s each. They were immediately put to a strong Southdown ram, and produced in due season some very strong and fine lambs. These being kept well, were soon fit for market; and when slaughtered weighed from 7 to 10 lbs. a quarter, and sold at an average price of 20s each. Some of the ewes have been killed off this autumn, and realised about the same amount. This I think is not a bad speculation, and one which may be copied with advantage, especially by those who have hilly poor land to manage. To see the lambs, especially the single ones, after they were six weeks or two months old was quite laughable, for some of them were larger than the dam, and as is too frequently the case with overgrown children of the genus *homo*, looked like sucking the parent in good earnest. That the breed of small sheep should be much improved in size by crossing with larger rams is quite in the same nature of things, for we see the same effect from similar cases throughout the animal kingdom. An increase of size is certain, and I should imagine a cross of the Southdown and Welch mountain breeds could not be bad in quality—at least of the lamb I can speak from a "knife and fork" experiment, and it was excellent; and perhaps in the spring of next year I may be able to give a similar opinion upon the mutton.—*W. P. Ayes, South Wales.*

A GOOD SUGGESTION.— The *Mark Lane Express* proposes that there be held a dead-meat exhibition, comprising carcasses of cattle and sheep of different breeds, the object being to ascertain the relative quality of the meat from each, and their relative value according to their weight. It is proposed to take five Devons, five Herefords and five Short-horns, together with the same number of sheep and pigs from each class, have the carcasses weighed and then cut them up according to market rules, and the divisions weighed in lots according to the prices they bring, so that the proportion of the best parts to coarser and offal may be known. This is all very well, but we would carry out the comparison still further, by having specimen pieces from one animal or more of each breed cooked and served to good judges, so that they could speak as to the quality from the best evidence.

Drainage.—I may be asked why I attach so much importance to drainage. Why, you might as well ask me why I attach so much importance to circulation, vital or monetary. Stagnant water, or stagnated air, are as ruinous to the plants as they would be to our own vitality. Fix a cork in the drainage hole of your flower pot, and you will soon have a practical illustration of my meaning. The sallow and bilious plant (like many turnip crops I know upon undrained land) will show by their expression what is denied to them in speech. This is not the occasion to enter into subterranean examination of gravity, capillary attraction, æration, or filtration, much less of all those affectionate or repulsive interchanges, that turn air, water, and earth, into food for man and beast; but be assured, circulation is vitality—stagnation death and ruin.—*Mechi.*

PREPARATION OF SKINS.—John Taylor, of London, has taken out a patent for the use of the brains of animals in the preparation of fine skins, as a substitute for the yolk of eggs which is now used. The brains are dissolved in warm water, and the solution is then strained, after which it is used either alone or mixed with flour until it assumes a pasty appearance like the yolk of eggs. The quality of inferior kinds of skins are improved to render them fit for glove-making by placing them in a close vessel and forcing in a solution of animal brains with a pump, so as to force it through the pores of the skins.

We believe our American Indians use the brains of the animals which they kill in the chase, for the purpose of preserving their skins and rendering them fit for moccasins, &c.

CORRESPONDENCE.

To the Editor of the Farmer's Journal.

The President of the Board of Agriculture presents his compliments to the Publisher of the *Farmer's Journal*, and understanding that a letter, lately received by him, addressed to the Board by the Chairman of the Local Committee at Quebec, is to appear in the next number, begs to express his great regret that any proceedings of the Board should have called forth such an ebullition of angry feeling as is therein exhibited. To point out the errors and omissions of this document would be a very easy matter, but he refrains from doing so, in the first place because the letter has not yet been submitted to the Board, and in the second place, because in his opinion such a course would only tend to increase irritation in a quarter, where it is his wish, as it is his duty, to endeavour to allay it.

MONTREAL MARKET PRICES.

Rates at which produce is purchased from the Farmers.

FRIDAY, *30th March*, 1855.

Hay per 100 bundles, 13 to $14.
Straw do 6 to $7.
Fresh Butter, per lb., from 1s 3d to 1s 6d.
Salt Butter, do from 1s 2d to 1s 3d.
Country Cheese, from 7½d to 9d.
Wheat from 11s to 12s.
Barley, from 4s 9d to 5s.
Rye, 5s.
Oats, from 2s 9d to 3s.
Indian Corn from 5s 9d to 6s.
Buckwheat, from 5s to 6s.
Peas, from 5s 3d to 5s 6d.
Beef, per 100 lbs, from 6 to $9.
Mess Pork, 16 $16½.
Mutton, per carcase, from 3 to $6¼.
Lamb, do from 2 to $3.
Veal, 2½ to $4¼.
Eggs, from 1s 2d to 1s 3d.

NEW PRINTS.

CRONSTADT with a Key, . .	£0	6	3
Dolby's Sketches in the Baltic, each,	0	5	0
Bird's-Eye View of the City of Varna, with Key, ...	0	6	3
Les Defenseurs du Droit et de la Liberte de l'Europe, ...	0	6	3
H. M. S. Driver and Yachts, Gondola and Esmeralda off Cronstadt, . .	0	9	0
English Fleet entering the Great Belt, March 24th, 1854, ...	0	9	0
The "Arrogant" and "Hecla" Destroying the Batteries at Eckness, May 20th, 1854.			

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H. RAMSAY.

AGRICULTURAL SOCIETY
OF THE
COUNTY OF MONTREAL.

THE SOCIETY'S ANNUAL SHOW OF HORSES will be held at the HAY MARKET, in the City of Montreal, on TUESDAY, 1st May, next, at ELEVEN, A.M.

It is desirable, not only that Stallions should be brought to the Show, but that other Male Animals should be exhibited—particularly Bulls.

The Competition for the following Premiums, to be awarded at the Annual County Cattle Show, to be held in the Fall, will be restricted to Horses brought to the Show to be held on the 1st May next, and upon condition, also, that such Horses have been kept in the County for the use of Mares during the Season. That the places where they have stood, has been publicly advertised, and that the use of such Horses has been afforded to a reasonable number of applicants, Members of the Society, at a reasonable charge.

For the best Draught Stallion, . .	£5	0	0
Do 2nd do . .	4	0	0
Do 3rd do . .	3	0	0
For the Stallion best adapted to propagate a good class of Carriage Horses,	3	0	0
Do 2nd do . .	2	0	0
For the best Saddle Stallion, . .	3	0	0
Do 2nd do . .	2	0	0

The Society invite all who are willing to aid them in making the Show attractive, to contribute specimens of all kinds of Seeds, and improved Agricultural Implements.

Owners of Stallions who are not inclined to compete for the Premiums offered by the Society (if any) are respectfully requested to attend the Show, and afford Breeders an opportunity of selection.

By Order,

JAMES SMITH,
Secretary-Treasurer.

Montreal, 12th March, 1855.

1855.
AGRICULTURAL SOCIETY
OF THE
COUNTY OF MONTREAL.

THE Subscribers to the Funds of this Society generally, are notified, that TWO THOROUGH BRED AYRSHIRE BULLS have been imported, one is kept at the Stables of Leon Laporte, Esq., in the Parish of Longue Pointe;—the other, at the Stables of James Powley Dawes, Esq., at Lachine, in the Parish of Lachine; each Member of the Society for the current year, has the right of the gratuitous use of his choice of either Bull for two Cows, but must pay a fee of 2s 6d for every other Cow sent.

Members are requested to send their tickets of Membership, and money with every third or other Cow, if more than two be sent, as all payments must be made strictly in advance, otherwise no service will be rendered. And Farmers generally are requested to take notice that until subscriptions for current year be paid they will not be entitled to use Bulls.

By Order,

JAMES SMITH,
Secretary.

N.B.—Another Bull is expected in the Spring, and forthwith, after its arrival, will be placed at St. Laurent, for the use of Farmers in that locality.

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Montreal, 1st July, 1854.

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